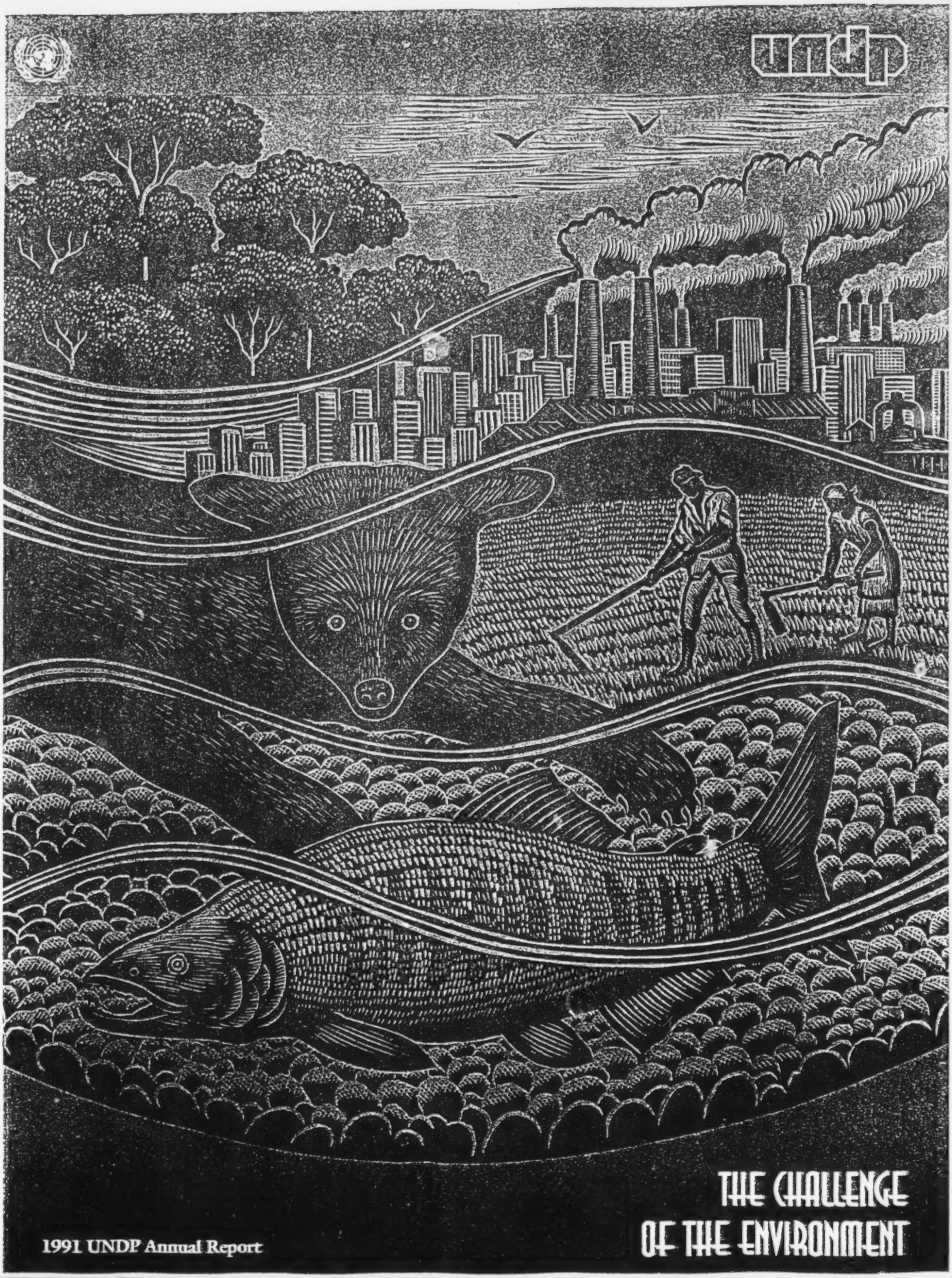

undp
THE CHALLENGE
OF THE ENVIRONMENT
1991 UNDP Annual Report

FACTS AND FIGURES ABOUT UNDP

The United Nations Development Programme is the world's largest multilateral grant development cooperation organization. Through a network of offices in developing countries, it serves as the central planning, funding and coordinating agency for technical cooperation by the entire UN system. The following are preliminary figures for the end of 1991.

Service to developing countries	42 years
Countries and territories served	153
Field offices	115
UNDP international personnel	2,385
UNDP national personnel	4,695
Ongoing projects	6,189
General development issues, policy and planning	1,498
Agriculture, forestry and fisheries	988
Industry	832
Natural resources	492
Health and education	527
Transport and communications	468
Science and technology	346
Employment	291
Population, humanitarian aid and human settlements	275
Other	472
Number of projects approved in 1991	1,002
Contributions pledged for 1992	US$1.3 billion
United Nations Volunteers in the field	2,916
International experts recruited in 1991	9,906
National experts recruited in 1991	11,090
Fellowships awarded in 1991	14,077

CONTENTS

The Report of the Administrator	1
The Challenge of the Environment	3
Putting Hope Back into Cities	4
Reducing and Managing Waste	6
Managing Water Resources	8
Promoting Sustainable Agriculture	10
Balancing Forest Use and Conservation	12
Harnessing and Conserving Energy	14
Global Initiatives:	
The Global Environment Facility	16
The Montreal Protocol: Tackling Ozone Depletion	18
Sustainable Development Network: Providing Information for Development	19
The Year in Review	20
Results	
Africa	22
Asia and the Pacific	24
Latin America and the Caribbean	26
Arab States and Europe	28
Global and Interregional	30
Associated Funds and Programmes	32
Distribution of UNDP Resources	34
Executing Agencies	

Cover: UNDP is honoured to have Keizaburo Tejima's illustration on the cover of this year's annual report. Born in Hokkaido, Japan, Mr. Tejima uses woodcut, an ancient graphic form, to give an intimate glance into the world of nature. Commended by many organizations in his native land, Mr. Tejima's art lyrically reflects a traditional Japanese reverence for the environment.

THE REPORT OF THE ADMINISTRATOR

Dramatic political events took centre stage in 1991. The year began with conflict and turmoil in the Gulf. It ended with the dissolution of the Soviet Union and the birth of a Commonwealth of Independent States. A historic peace agreement in Cambodia was signed and the country is poised for reconstruction and development. We enter a new era hopeful for peace and intent on meaningful cooperation.

Equally important as these political developments has been the enormous ground swell of public opinion in defense of our planet Earth. As our 1991 annual report goes to press, representatives from governments and people's organizations around the world are gathering at the United Nations to negotiate agreements for June's *Earth Summit* in Brazil, which we trust will launch us on a new and positive course of sustainable global growth. Acknowledging the importance of the UN Conference on Environment and Development — and of the critical tasks ahead — UNDP has chosen the environment as the theme of this year's report.

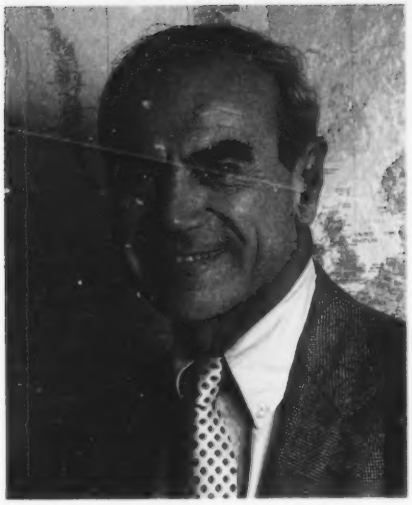
In preparation for this global meeting, UNDP has been actively working with developing country governments and non-governmental organizations in planning national and regional environmental strategies. We have dramatically increased our support of environmental activities in nearly all of the more than 150 developing countries and territories we serve. An Environment and Natural Resources Group — staffed by a team of environmental experts — has been established to ensure that all of UNDP's development efforts are ecologically sound. We have published a *Handbook and Guidelines for Environmental Management and Sustainable Development* for development practitioners. We are sponsoring consciousness-raising seminars and workshops on the environment in countries throughout the world, and encouraging participation by all. Together with the World Bank and UN Environment Programme, we are managing the over $1 billion Global Environment Facility to translate global environmental concerns into projects on the ground.

Through all of these activities, UNDP remains acutely aware of the tension that can exist between environmental preservation and economic progress. But we also believe that a balance can be achieved. For developing countries, growth is not an option. It is an imperative. The issue is not one of limiting growth, but of achieving it without overburdening future generations.

As we have consistently stressed in our *Human Development Reports*, development that is sustainable and that truly makes an impact on the quality of people's lives is far more complex than economic growth alone. It means widening the range of people's choices — in health, education, income and employment. It means promoting human rights and political and economic freedom.

In 20 countries — from Bangladesh to Ghana, from Colombia to Pakistan — UNDP is now helping to translate the human development concept into action. We are breaking new ground in other related areas as well. In Ghana, for example, we have helped in the design of a new Constitution. In Angola, El Salvador and Guyana, UNDP is supporting the electoral process. Day by day we are playing a more active role in policy dialogue with developing country governments, and contributing to the development debate worldwide.

For the new Commonwealth of Independent States, UNDP has called for a $50 million aid package for immediate technical assistance. We stand ready to play a coordinating role in getting food and other emergency relief to these newly independent states, which are struggling so valiantly for democracy. In the three Baltic Republics of Estonia, Latvia and Lithuania, we are sending advisers to



help provide urgently needed technical expertise, and to lay the groundwork for five-year UNDP-funded country programmes.

But UNDP's most important role will continue to be its traditional one: building the capacities of developing countries to carry out sustainable development after outside assistance has ended. This is a long-term process. But it is a critical one, especially in those least developed countries where the intertwined problems of poverty and environmental degradation are most deeply rooted. Beginning in 1992, 55 per cent of UNDP programme resources will be allocated to 45 of the world's poorest countries, most of which are in Africa. It is here, in this beleaguered yet promising continent, where our strongest and most imaginative efforts must be deployed.

All of these efforts are taking place in lean economic times. Despite the pressures on national budgets, donors pledged over $1.3 billion to UNDP and its associated funds for 1992. This represents a four per cent increase from the previous year, which is only half of the eight per cent target set by our member governments. In order to preserve our planned programmes in developing countries, UNDP has instituted a 15 per cent cut in operations at our New York headquarters for 1992. Given the state of the global economy, frugality is not only fashionable, it is appropriate.

Undeniably, reform is in the air. And the United Nations system is no exception. We at UNDP remain open to change. We welcome any restructuring that will improve the efficiency and effectiveness of the system, and better enable us to reach the people we are here to serve.

As we confront the challenges of the 1990s, we do so in a spirit of cooperation. We have to work together for peace. We have to work together for human development and social justice. We have to work together to safeguard the natural environment that gives us life. The decade of the 1990s will be pivotal in determining the future direction of our planet, a decade where North-South and East-West divisions will be dissolved and a new global compact will be born. Together, we can see that vision made real.

William H. Draper III
Administrator

THE CHALLENGE OF THE ENVIRONMENT

In the 20 years since the landmark United Nations Conference on the Human Environment in Stockholm, concern for the environment has seeped into the consciousness of individuals and societies in countries throughout the world. The environmental movement has forced its way into national and global political agendas, and now lies at the heart of many development plans and aid programmes.

World leaders meet in June 1992 in Rio de Janeiro to take this process one step further at the United Nations Conference on Environment and Development (UNCED). They gather in the recognition that environmental degradation knows no national boundaries and that few industrialized countries acknowledge responsibility for global environmental problems. These leaders realize that the fight to save the Earth is one in which we must all participate. At the same time, the struggle for development must be intensified, seeking economic growth to break the cycle of poverty that shackles so many countries. Above all, there is the need to balance this development with the very survival of our planet.

UNDP is lending its support to this global crusade by its presence at Rio, as it was in Stockholm, along with other UN agencies. UNDP is currently financing more than 630 environment-related projects valued at over US$700 million. Since 1988, 80 developing countries have participated in UNDP-sponsored workshops on environment and sustainable development. In many cases, these inspired government policy and action plans.

Over the next decade, UNDP will assist countries in integrating environmental concerns into national development planning. Toward that end, the UNDP Environment and Natural Resources Group will help mainstream environmental concerns into all UNDP programmes. It will also play a catalytic role in formulating sustainable development strategies, and will manage specially-funded programmes ranging from energy to sustainable agriculture. The unit is also responsible for promoting environmental education among men, women and children out of school.

During the last few years, UNDP has worked to foster participatory development through cooperation with non-governmental organizations (NGOs). UNDP is currently backing NGO contributions to UNCED preparatory processes at national, regional and international levels. In gearing up for UNCED, all UNDP Resident Representatives have offered technical support for the preparation of national reports.

UNDP is also pressing for the integration of ecological concerns into private sector activities. And it is devising strategies to limit the impact of ecological degradation on women.

Ecology begins at home and, in 1991, UNDP launched a campaign for greater environmental sensitivity among its own staff. Now, for example, only recycled paper is used for photocopying and outside commercial printing at headquarters. This practice has been extended to field offices where recycled paper is available.

UNDP believes, as do governments and institutions throughout the world, that development and the environment must be one, and that the future of the Earth must be a shared concern of industrialized and developing nations alike. Only through international cooperation can solutions to global environmental problems be found. In the preparations for UNCED, no effort must be spared to breach the gaps between the interests of industrialized and developing countries. UNDP, as a provider of technical assistance, sees its role as a builder of bridges. It will endeavour to find those areas of convergence through which cooperation can be forged.

READEX
FICHE

PUTTING HOPE BACK INTO CITIES

Rapid urban growth threatens to turn hope for a better future into an environmental nightmare for billions of city dwellers. In 1990, the world's urban population stood at 2.4 billion, two thirds of whom lived in developing countries. By the year 2025, a United Nations study estimates that it will more than double, to 5.5 billion — a little larger than present total world population.

Much of this growth will be in developing countries, which will contain 4.4 billion people or 80 per cent of world urban population by the year 2025. The fastest growth will be in the poorest areas.

By the end of this decade, 17 of the world's 25 megacities with populations exceeding 10 million, such as Buenos Aires in Argentina, Lagos in Nigeria and Seoul in the Republic of Korea, will be in developing countries. By the end of the 1990s, Mexico City will have 25 million people, Sao Paulo in Brazil 22 million, and Bombay and Calcutta in India and Shanghai in China each more than 15 million.

Urban sprawl in these countries is closely linked to rapid population growth rates. It is also fed by massive rural-urban migration from villages and remote towns to large cities, in the belief that urban centres provide better job opportunities, social services and wages.

Cities are traditional catalysts for economic growth. They produce 60 per cent of the Gross National Product of developing countries. The larger labour force allows manufacturing and service sectors to expand. However, many migrant workers, lacking skills and education, barely manage to eke out a living from informal jobs such as hawking and vending.

Cities absorb two thirds of the developing world's total population increase. This also means they are depleting vast quantities of natural resources and generating enormous amounts of wastes which urban authorities are ill-equipped to handle. The environmental consequences of this have undercut human health and the quality of life, especially for the poor.

Many migrants live in abject poverty in cities. Their swelling numbers far outstrip the availability of shelter, potable water, jobs, transportation and clinics. According to the World Bank, about a quarter of the urban population in developing countries was living in absolute poverty in 1988. By the year 2000, more than half the poor will be concentrated in urban areas.

Already, the beginnings of environmental disaster are being felt. They range from air pollution, faecal contamination of drinking water and hazardous waste pollution, to depletion and degradation of freshwater resources, occupation of high-risk land, and damage to ecosystems and cultural property.

In Cubatao, Brazil, air pollution is so severe that its people suffer from high rates of tuberculosis, respiratory diseases, and infant mortality. In the Haitian capital of Port-au-Prince, more than 20 per cent of newborns die before they reach their first birthday, three times the rate for rural Haiti, because of disease and infections from malnutrition.

Fish production has declined by 80 per cent in Egypt's Lake Maryut near Alexandria due to discharges of industrial and domestic effluent. In Cracow, Poland, corrosive sulphur and fluoride-laden dust from industries threatens to destroy over 6,000 historic houses, churches and monasteries.

Accompanying the physical declines are the many social ills associated with urban poverty — drug addiction, crime, prostitution and the growing spectre of HIV infection and AIDS.

UNDP has long supported activities to improve life for

UNDP works with slum dwellers in Thailand to alleviate urban poverty.

Cities like Bangalore in India are catalysts for economic growth.

city residents. Since 1971, it has financed more than $3.5 billion in urban-related projects. These range from provision of low-cost, self-help housing and public services, to promoting income-earning labour-intensive work programmes and small-scale private enterprises.

In the past, UNDP's strategy on urban development cooperation has emphasized institution building for sustainable development and helping developing countries achieve economic self-reliance.

In 1991, as part of UNDP's urban development cooperation strategy, five priority areas were identified for improving the urban environment over the next decade:

- upgrading solid waste management, energy use and alternative transport systems;
- reducing air pollution;
- alleviating poverty and improving the quality of life of disadvantaged groups, including women, squatters and slum dwellers;
- enacting laws for urban environmental management; and
- incorporating environmental planning in city master plans.

UNDP has launched several major national and regional programmes to implement these priorities. In a regional programme called the Asia-Pacific 2000 initiative, non-governmental organizations (NGOs) in India, Pakistan, the Philippines, Sri Lanka and Thailand are improving the urban environment by creating viable settlements and improving water and waste disposal facilities. The aim is to improve living standards and reduce poverty among slum dwellers and squatters. The NGOs are working with strong community participation in both planning and action.

Also in Asia, planners in five major cities are setting up Environment Management Action Plans. In Beijing, Bombay, Colombo, Jakarta and Manila, formulation of these plans is being assisted by the Metropolitan Environmental Improvement Programme. The plans aim to reverse the process of environmental degradation caused by rapid urbanization, industrial pollution and sheer neglect. They also seek to draw in civic and professional groups, commercial associations, religious and community organizations and the media, which have demonstrated growing concern about safeguarding the environment in these cities. UNDP has allocated $2.5 million for pilot projects and in-country studies to be undertaken in cooperation with these groups.

In Africa, UNDP is funding nearly 200 waste management projects costing almost $150 million. They range from solid waste management and waste water treatment to garbage disposal and recycling of wastes. For example, in Niamey, Niger, a pilot project is under way to construct 42 latrines for four schools to improve health and sanitation.

In addition, UNDP funds global research through its Urban Management Programme, jointly executed by the World Bank and the United Nations Centre for Human Settlements (Habitat). The Programme is examining the underlying causes of urban environmental concerns and will propose policy options. It will also focus on pollution control and waste management.

In cooperation with Habitat, UNDP is also preparing a Policy Paper on the urban environment. This will analyze problems and identify innovative programmes and policies as an aid for decision makers, both in developing countries and in external assistance programmes.

REDUCING AND MANAGING WASTE

By the year 2000, it is estimated that half of the world's 6.3 billion people will be living in cities. Over two billion are expected to reside in metropolises of developing countries.

World urban wastes are already estimated at 720 billion tonnes annually, of which 440 billion — more than half — are generated in developed countries. The problem in both industrialized and developing countries is twofold: people often are too wasteful in their production and consumption, and then pay too little attention to proper disposal of refuse.

Even at today's level of urbanization, developing countries are having difficulty coping with faecal contamination of drinking water, depletion and degradation of fresh water resources, and hazardous waste pollution. They spend sizeable portions of their municipal budgets on these problems. Yet many cities cannot seem to control and reduce the dumping of raw sewage and garbage into rivers and drainage canals, and the generation of mountains of solid wastes by households and industries.

Only a very small portion of the sewage in developing countries is treated, creating serious health hazards. For instance, about half the sewage produced in greater Cairo, Egypt, is dumped, untreated, into open drains, which empty into the Nile, a primary source of water for irrigation and domestic use. In Indonesia, 12,500 kilograms of raw sewage generated daily by millions of slum dwellers in and around Jakarta, is dumped into one of nine rivers that flow into Jakarta Bay. Near the town of Tocaima, Colombia, the Bogota River has an average faecal bacteria coli-form count of 7.3 million, making the river an unfit source of water for drinking or cooking.

The World Bank estimates that 400 million urban and 1.5 billion rural residents currently lack adequate access to sewerage. With projected population growth of 6.3 billion by the end of the century, the numbers will rise to 625 million and 1.7 billion, respectively.

Rapidly expanding urban households also generate far more solid wastes than local authorities can handle. According to the United Nations Centre for Human Settlements, only between 25 and 55 per cent of all waste generated in large cities is collected by municipal authorities. Up to 95 per cent of the refuse is thrown into open dumps, which can render land unusable and endanger human health. It is estimated that over five million people die each year from diseases related to inadequate waste disposal systems.

Manila's notorious "Smokey Mountain," an open dump on 23 hectares of land, receives 3,500 tonnes of domestic wastes daily. Nearly 35 different diseases have been identified, including malaria and skin diseases, that stem from living near rubbish heaps. Despite these health hazards, almost 20,000 people earn their living from combing the landfill for anything they can sell.

To compound the problem, increased industrialization in developing countries has created hazardous wastes, which seriously threaten health and the environment. The worst offenders are chemical and allied industries, leather tanning and finishing, paint manufacture, electroplating and metal finishing, and petroleum refining. The concentration of industries in large metropolitan areas in Latin America has not only caused air pollution problems but serious respiratory diseases. Untreated organic discharges from industries in Asian cities are destroying plant and fish life.

Industrialized countries generate by far the largest amounts of toxic and hazardous wastes. A 1987 estimate puts hazardous wastes production in these countries at up to 375 million tonnes a year.

Waste can have far-reaching and sometimes long-term

and irreversible consequences for human health and the environment. Thus, its disposal and management must become a critical feature in future urban planning in developing countries. But this alone will not be enough. The volume of wastes created must also be reduced. Little will be accomplished if the problem is addressed at the waste disposal end only.

Some governments have already taken steps to dispose of refuse economically. The People's Republic of China offers tax breaks to companies that recycle wastes or use recycled products. The largest and most diverse of such companies is the Shanghai Resource Recovery and Utilization Company (SRRUC), which recycles garbage created by Shanghai's 13.5 million people. SRRUC received technical expertise under a UNDP-World Bank global resource recovery project. From waste materials, the company makes various products, including manhole covers and counterbalances for lifts and bridges.

Many governments, recognizing that they cannot manage wastes from a national level, have decentralized the task to local authorities and non-governmental organizations (NGOs). For instance, an NGO in the Philippines, the Metro Manila Council of Women Balikatan Movement, has successfully organized households of San Juan to separate their wastes for recycling.

In Mali, UNDP's project for Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWWESS), with other UN agencies, organized unemployed women college graduates as garbage collectors, hygiene trainers and family planning counsellors. The women formed a garbage collection cooperative and won a municipal contract to clear trash from an area in Bamako.

In Nigeria, UNDP assistance in preparing master plans for waste disposal and drainage in the city of Ibadan led to the creation of the Ibadan Wastes Disposal Board.

UNDP's long-term urban strategy includes continuing assistance to developing countries in coping with environmental degradation due to urban wastes. UNDP will support programmes that adopt environmentally sound waste disposal practices, improve the efficiency of waste collection and transport systems, extend waste collection services into low-income areas, and enable the participation of the private sector and NGOs in waste collection, treatment and disposal.

More important, however, is the need for greater responsibility among industries and people toward waste reduction, proper wastes management and disposal, and a change in attitude in favour of a cleaner environment.

Despite health hazards, people eke out a living from combing Manila's "Smokey Mountain" rubbish dump.

Women trainers in Mali use picture cards to discuss hygiene.

MANAGING WATER RESOURCES

Water is a finite resource. With less than one per cent of the earth's water available for human consumption, the competition for this resource is fierce. The challenge for the 1990s, therefore, is to strike a balance between satisfying current and future water needs of people, agriculture, industry and livestock, and managing, conserving and protecting overall water resources in a sustainable way.

To achieve this, existing sources of surface and groundwater have to be utilized and managed efficiently. UNDP regards water as a critical and integral element in development planning.

UNDP was actively involved in the International Drinking Water Supply and Sanitation Decade (1981-1990) as country-level coordinator, as funding agency and as chair of the Decade's Steering Committee for Cooperative Action. Some 1.35 billion people gained access to potable water during the Decade, yet the goal of providing safe drinking water for all by 1990 could not be realized. A total of 1.2 billion people still remain without access to good quality potable water while another 1.7 billion have no sanitary means of disposing of human waste.

The Decade did succeed in creating greater awareness of water supply and sanitation issues and needs. One of its finest accomplishments was to demonstrate how community participation, especially of women, is a key factor in the success of programmes and projects. The Decade also witnessed a breakthrough in innovative, appropriate and low-cost technologies; these made facilities more affordable for users, enabled communities to install, operate and maintain them, and transferred responsibility and ownership to communities.

During the Decade, the emphasis also shifted from planning and construction to socio-economic and sustainability issues, focusing on water resources management. This generated growing awareness of the specific role that women play in promoting social and economic development, and in the use and management of natural resources.

UNDP, jointly with other UN agencies, continues to emphasize the water and sanitation sector. Currently, UNDP is funding over 400 country and inter-country projects in the sector amounting to nearly $400 million. The UNDP-World Bank Water and Sanitation Program is now operational in more than 40 countries of Africa, Asia and the Pacific, Latin America and the Caribbean and the Arab region. The Program spends over $17 million annually, of which UNDP contributes two thirds and the World Bank, bilateral donors and others contribute one third.

In September 1990, UNDP took the initiative, in conjunction with the Indian government, in organizing the Global Consultation on Safe Water and Sanitation for the 1990s. Sector professionals, experts and UN agencies reviewed the progress of the Decade and planned for the next decade. They pledged to build on the experiences of the eighties and continue the effort to provide water and sanitation services for all in the context of integrated planning with a focus on the environment.

The outcome was the New Delhi Statement, which sets out four principles for sustainable sector development strategies during the nineties. These principles focused on health and environment, people and institutions, community management, and finance and technology.

Following the global meeting, the Statement was sent to all UNDP Resident Representatives, recommending that the principles be applied in formulating country programmes. This move dovetails with the issuance in 1991 of UNDP's Handbook and Guidelines for Environmental Management and Sustainable Development,

which helps planners incorporate environment into the development process.

While water is the source of life, it is also often the source of disease in developing countries. Onchocerciasis or river blindness brings great hardship in rural African communities. Caused by the female blackfly which breeds in swift-flowing rivers, the disease results in severely debilitating eye damage, eventually leading to blindness. Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Senegal, Sierra Leone and Togo are involved in a vector control programme, which receives support from national governments, UNDP, the World Bank, the World Health Organization and a host of other external donor organizations.

So far, over 100,000 cases of blindness have been averted. The disease is controlled by applying non-persistent insecticides at breeding sites to destroy the blackfly larvae. The ecological impact of vector control on the environment is carefully monitored.

In the poverty-stricken shanty town of Bé, outside the Togolese capital of Lomé, children were dying from diarrhoea from drinking contaminated water. In the absence of latrines, flies feasted on scattered excrement and spread diseases while hookworm multiplied.

With support from UNDP's Division for Non-Governmental Organizations, the Conseils de Gestion Afrique Togo, an NGO, helped construct community water fountains and public latrines in Bé. Today, women collect clean water from public water taps. Each family contributes five US cents a week to a community fund to maintain the taps. Also, for each visit to the public latrines, men and women pay three US cents for their upkeep.

On a larger scale, much more needs to be done. In many cities in the developing world, industrial, human and solid wastes have piled up. Rivers, estuaries and coastal areas are polluted by sewage. Groundwater resources are at risk from uncontrolled dump sites.

Most needed are actions to build up developing countries' capacities to plan and carry out sustainable water-related programmes and projects. Institution-building and training are considered steps in the right direction.

UNDP also urges governments to recognize that water is integral to the environment and social development, and to devote more of UNDP's country allocations to improve the water sector. UNDP also works with NGOs in this area because of their extensive practical experience with rural and urban communities. Ultimately water and sanitation programmes can only be successful if communities themselves become more involved in all aspects of their planning, operation and maintenance.

A woman collects water from a community water tap in Togo.

In Guinea, a consultant assists local people with irrigation.

Indonesian children draw clean water from a pump.

PROMOTING SUSTAINABLE AGRICULTURE

The need to increase food production in developing countries has become more pressing since the mid-1980s. The impact of severe drought in Africa and natural disasters in Asia, combined with rapidly expanding populations, worsened the outlook for food security.

Lack of food is most severe in sub-Saharan Africa and South Asia but the forecast for sub-Saharan Africa is especially devastating. It is the only developing region with declining per capita food production. It also has the highest proportion of eroded land and the highest percentage of people suffering from severe malnourishment.

With world population expected to grow from more than five billion to nearly eight billion by the year 2015, overall agricultural yields will have to grow more than two per cent a year to achieve global food security.

Increasing food production is an important goal. But it must be achieved in a sustainable manner. The challenge facing farmers in developing countries today, therefore, is to strike a balance between boosting yields to feed expanding populations and adopting environmentally sustainable agricultural methods that do not deplete the natural resources needed for future decades of farming.

Many major development agencies, including UNDP, have too often supported a top-down advisory approach to development. National staff, trained abroad in a different context, have found it difficult to adapt their knowledge effectively to local conditions, thus compounding the problem. Women, who are often responsible for 80 per cent of agricultural production, have been largely ignored in the development process.

UNDP has taken a critical look at past development experience. The transfer of high-input agricultural technologies to developing countries, in the mistaken belief that technology can bring the same benefits everywhere, frequently proved useless. Lack of money and inadequate maintenance often rendered these technologies unproductive.

The sustainability of agricultural production depends on a number of variables, among other things, solar energy, soil fertility, local climate, and the genotypes of plant and livestock species.

The industrial approach to agriculture in developed countries, while yielding bountiful harvests, has been accompanied by damage to the environment and impoverishment of the land. The use of heavy machinery in soil preparation leads to compaction and other detrimental changes in soil structure. Erosion can occur when mechanized tillage is applied unskillfully to sloping land.

The tools of industrial agriculture are powerful. If uncritical application of such tools has harmed the environment of developed countries, its effect on some developing countries in Asia has been equally destructive. Under such conditions, agricultural production ceases to be economically and ecologically sustainable.

Heavy use of chemical fertilizers has affected nutrient absorption by crops. The chemicals have also contaminated groundwater, making it unfit for human consumption. Misuse of pesticides has devastated organisms not only in "protected" agricultural areas but also in contiguous and spatially separate ecosystems. It is estimated that over five billion pounds

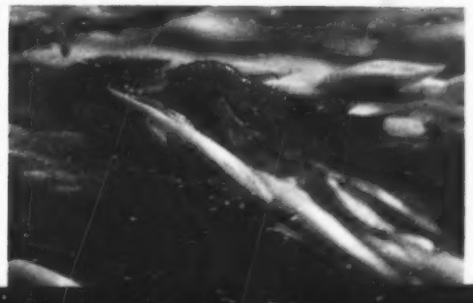
Terraced agriculture stops soil erosion in Indonesia.

of pesticides are used annually throughout the world, with developing countries accounting for 15 per cent of global pesticide use. They also account for about 375,000 cases — or over half the world's total — of accidental poisoning from pesticides annually.

In the 1980s, knowledge of past failures, deepening recession and food shortages gave rise to a search for alternatives and a different approach to agricultural development. Rural communities reexamined the role of traditional farming practices and started improvising and creating innovative "user-friendly" technologies. And they shared their knowledge with other developing countries at meetings and workshops. For example, in September 1991, more than 20 developing countries met at a UNDP-sponsored Food and Agricultural Development workshop in the Philippines; they negotiated bilateral cooperation in fields ranging from integrated livestock breeding techniques to ecologically sound agro-forestry practices.

Top: Pest-resistant varieties of maize have been developed with UNDP support.

Bottom: The stem borer, a pest that attacks maize plants.



International agricultural research centres supported by UNDP's Division for Global and Interregional Programmes and other donors made gains that were critical in improving food security in developing countries. An important goal was to develop new strains of plants with a natural resistance to pests, drought and disease. Another was to find ways of increasing crop yields without further damaging and polluting land and water resources. The International Rice Research Institute (IRRI) is a case in point.

Indonesia was losing 500,000 hectares of rice a year — enough to feed three million people — from attacks by the Brown Plant Hopper, which feasts on rice leaves. Massive doses of pesticides had no effect on the insect. UNDP-funded pest management experts discovered that the pesticides were destroying all the natural enemies of the Brown Plant Hopper, allowing a small pesticide-resistant population of the insect to multiply exponentially.

The government withdrew its subsidies for pesticides and introduced integrated pest management, including use of high-yielding, pest-tolerant varieties of rice made available by the UNDP-supported International Rice Testing Programme at IRRI. The strategy not only reversed the decline in rice production but saved farmers and the Indonesian government more than $150 million a year in pesticide expenditures and subsidies.

Similarly, in Mexico, UNDP is assisting the International Maize and Wheat Improvement Center (CIMMYT) in breeding varieties that are more resistant to maize's number one pest enemy — the stem borer.

UNDP recognizes that sustainable agriculture depends on the daily actions of millions of farmers and their families. These men and women have a sense of stewardship of the land. They understand that, to survive, they must conserve the productivity of the soil. Thus, over the last 20 years, UNDP has spent more than $2 billion on rural projects which make available crucial agricultural inputs and training. It believes that providing farmers with agricultural education and ecological training will enable them to produce more efficiently and safeguard the environment at the same time.

In UNDP's next five-year (1992-1996) programme cycle, it will help governments incorporate environmental issues in agricultural planning. The organization will examine critically all requests for support to projects and programmes involving the intensive use of machinery, fertilizers and other agro-chemicals. It will ensure that the management of agricultural development is in the hands of women and men who know and understand agriculture and the environment.

BALANCING FOREST USE AND CONSERVATION

The destruction of forests — tropical and temperate — is a cause for global concern. According to the World Resources Institute, the world is losing up to 20.4 million hectares of tropical forests every year.

Forest destruction has been a major topic of debate for some time. It often pits environmentalists against development practitioners, and developing countries against the industrialized world.

The main causes of deforestation are pressure to increase land for farming and urban settlements, slash-and-burn agriculture, logging, and the demand for fuelwood.

At stake is a resource of enormous economic potential which is also essential for the social well-being of millions of rural poor, including indigenous peoples, who depend on forests for their subsistence. Forests also support at least half of the world's flora and fauna and influence the earth's climate.

Developing countries value the richness of their forest heritage. However, with permanent sovereignty over their forests, they maintain their right to develop them in accordance with their socio-economic needs.

At the same time, socio-economic development is closely linked to environmental concerns. The challenge is to be able to realize sustainable development and manage forests sensibly for the future.

It is not an easy task. As the world's population grows, deforestation rates also rise steadily. To feed more mouths, land-hungry farmers slash-and-burn forest tracts to grow crops. Once the harvest is over, fragile topsoils are left exposed and vulnerable to relentless cycles of floods and droughts. In sub-Saharan Africa, the decline in food production per capita is due to land degradation caused mainly by deforestation.

Three-quarters of the world's population rely on wood as the main source of energy. In Ethiopia, for example, between 100,000 and 200,000 hectares of forests are cut down every year. Yet, at least 200 million people lack enough wood to cook their food properly. In many rural areas, women and children spend up to 10 hours each day scouring for twigs, leaves and dung to use as fuel.

Deforestation and land degradation also prevent absorption of a fourth of the carbon released into the atmosphere by burning fossil fuels worldwide for industry, heating and transportation. This contributes substantially to accelerating changes in our climate. Deforestation also robs forests of irreplaceable biodiversity.

But there are encouraging signs amidst the sombre facts. Virtually every country is now devoting more attention and financial resources to forestry. Reforestation is accelerating at an unprecedented rate. In Indonesia, the government has pledged to channel $300 million annually to reforest 20 million hectares over the next 65 years. In the Asia/Pacific region, three million hectares are being planted annually. The Environment and Development Commission for the Amazonia is working with eight Amazon countries to strike a balance between development and the preservation of the Amazon.

Equally encouraging is the growing public awareness about forests. Throughout the world there are innumerable spontaneous local initiatives aimed at protecting and re-establishing trees. Many of these have come from non-governmental organizations (NGOs); others have come from the private sector in reaction to the economic potential of forest replenishment.

The international development community has also responded with increased support to the forestry sector. The first major comprehensive environmental initiative was the Tropical Forest Action Programme (TFAP), co-founded by UNDP, FAO, the World Bank and World Resources Institute more than six years ago. It brought to-

Pygmies — indigenous people of the Central African Republic — depend on forests for a living.

gether bilateral and multilateral donors, developing countries and some NGOs to coordinate initiatives in forestry.

Since its inception, TFAP programmes have been initiated in over 80 developing countries, in many cases with UNDP funding. More recently, UNDP joined other agencies in efforts to revamp the TFAP by giving more scope for national coordination and leadership and involving a broader segment of interests. Forest management, conservation and replenishment will remain a priority of the development community, including UNDP, in the years ahead.

Although UNDP's regular assistance programme has always featured forestry, there has been a significant transformation over time. In the 1960s and early 1970s, UNDP focused on timber assessments, forest management, industrial uses of forest products, forest protection and other traditional forestry activities.

After the energy crisis of 1973, fuelwood came into focus as the main source of energy in poor countries. The increasing needs of rural people for tree products led to new emphasis on participatory forestry. This is now an important UNDP priority, with funding for scores of such projects. For example, in the Philippines where participatory forestry has considerable history, the government sought UNDP assistance to help develop a more equitable distribution of forest resources and ecologically sound forest management. This has paved the way for three community forests totalling 7,600 hectares throughout the Philippines.

Tree planting in the Philippines contributes to sustainable land use.

Recent advances have been made in cultivation techniques for fast-growing high-yield plantations tailored for specific products. As these plantations mature they will gradually relieve pressures by industry on natural forests and open up economic opportunities in tropical and subtropical regions. Many of the advances in tree improvement have taken place in developing countries such as Brazil and Chile, opening the door to increased technical cooperation among developing countries.

Agroforestry — cultivation of trees and crops together — and the direct involvement of women are gaining recognition and are contributing to sustainable land use practices. And forest preservation and conservation, which have been diligently promoted by the NGO community, are now becoming priorities of governments throughout the world. The Global Environment Facility (GEF) has provided an important boost to forest conservation. In less than a year of operation, the GEF has committed $234 million to the protection of biodiversity, primarily in forested areas. More can be expected in the years ahead.

HARNESSING AND CONSERVING ENERGY

Over the next 30 years, it is estimated that the demand for energy will grow by 50 to 60 per cent. Most of the increase will come from developing countries as they seek to industrialize, raise standards of living, cope with urbanization and attend to the needs of expanding populations.

Over the last 20 years, the demand for energy in developing countries has been rising at an annual rate of 4.7 per cent. Between 1981 and 1986, commercial energy consumption grew at an annual rate of 6.6 per cent in South Asia, 5.8 per cent in China, 3.9 per cent in Southeast Asia, 2.7 per cent in Africa and 2.5 per cent in Latin America. In the industrialized countries, the growth rate was about one per cent per annum but starting from a much larger base.

Developing countries still consume four to seven times less energy per person than industrialized countries. In fact, industrialized countries use nearly 70 per cent of the world's commercial energy although they have only 25 per cent of the world's population.

Energy production and use is a major cause of environmental degradation. Fossil fuels such as coal and oil release carbons into the air and are the largest source of greenhouse gases, which contribute to global warming. Industrialized countries are largely responsible for greenhouse gases, emitting over 80 per cent of the world's total between 1800 and 1988.

Coal combustion produces acid rain, which results in acidification of lakes and destruction of forests. Half of today's electricity in developing countries is generated by coal. Although there have been breakthroughs in "clean-coal" technologies, the prohibitive costs prevent developing countries from adopting these innovations.

Large-scale hydroelectric dams, while furthering development, have often resulted in destruction and flooding of valuable agricultural land, dislocation of entire communities, introduction of waterborne diseases such as schistosomiasis and typhoid, and siltation. Nevertheless, hydropower is still an important source of energy in Asia, supplying about a third of the total electricity in China and India and 52 per cent in Pakistan.

Many developing countries also depend on non-commercial sources of energy, mainly fuelwood, dung and crop wastes. More than 90 per cent of Nepal's energy comes from these sources. Often, overharvesting of wood occurs, resulting in loss of soil and nutrients, degradation of forest areas, desertification and disruption of natural drainage patterns.

Nuclear power today generates about 17 per cent of the world's electricity, but accidents at Chernobyl and Three Mile Island have raised serious concerns over safety and reliability.

Given that energy is essential for almost all activities, there is an urgency to find ways to achieve more efficient use of energy and minimize its impact on the environment. Work to reduce energy inefficiency is needed in such areas as industry, transport, commerce and households, as well as the rural sector, which is increasingly becoming mechanized.

Improving energy efficiency will not only reduce the use of energy resources, and thus slow down their depletion, but also decrease carbon dioxide releases into the atmosphere. However, this will require a change in people's energy-wasting habits, unwavering commitment from governments, and cooperation from industry and commerce to adopt new environmentally-clean technologies. It will also require industrialized nations to make these technologies easily accessible to developing countries.

Currently, for instance, the world's 400 million cars release 547 million tonnes of carbon into the atmosphere every year. Projections indicate a doubling of these emis-

sions over the next 20 years. Fuel-efficient cars, trucks and buses would reduce carbon emissions.

UNDP will continue to play a catalytic role in providing technical assistance to developing countries for the extraction and production of energy, generation of renewable sources of energy and promotion of energy conservation. UNDP will also help advance joint ventures between public and private sectors in these countries.

Some developing countries, with UNDP support, have already embarked on comprehensive conservation strategies. India and Peru have launched detailed conservation audits to increase energy efficiency in the industrial, transport, residential and commercial sectors. In Peru, the rural sector is involved as well. Here, UNDP will help to strengthen national institutions and promote conservation campaigns.

Other countries are exploring a diversification of energy sources, including greater use of fuels of lower carbon dioxide content. Under the joint UNDP/World Bank Energy Sector Management Assistance Programme (ESMAP), Indonesia has been able to convert existing diesel engine generators to burn natural gas in areas where natural gas resources were not being used productively.

The long-term objective of most countries — which is also UNDP's goal — is to lessen reliance on fossil fuels. The move is towards non-fossil sources of renewable energy that are environmentally-clean, such as small hydropower, and solar, wind and geothermal energies. Before this can happen, more research and development is needed to make these energy alternatives inexpensive enough for more countries to adopt them. An ESMAP study, for instance, has identified two sites in India where wind generators could be located to churn out a combined total of 75 megawatts of electricity.

The challenge today is for countries to improve energy efficiency, reduce dependency on fossil fuels, and promote energy conservation while educating the public on its importance. This takes time, just as it will take a long time in developed countries for people's lifestyles, consumption and production patterns and attitudes to change. The ultimate prerequisite is for industrialized and developing countries to work together to achieve more efficient and environment-friendly energy use.

Solar-powered fruit dryers could boost Chile's dried fruit exports.

Fuelwood is an important source of energy in Nepal.

Hydro-electric dams bring development but also destroy agricultural land.

GLOBAL INITIATIVES:

The Global Environment Facility

While the international community grapples with the shaping of complex legal Conventions to regulate the environment, funding mechanisms are being tested to help developing countries address global dimensions of national environmental protection programmes that they could never afford to treat on their own. The most significant initiative of this nature is the Global Environment Facility (GEF). It came about following a UNDP-commissioned study to explore ways of assisting developing countries to protect the global environment and transfer environmentally-friendly technologies.

The GEF is a three-year pilot programme with more than one billion dollars in funding. It supports projects in developing countries aimed at reducing greenhouse gas emissions, preserving biological diversity, protecting international waters, and reducing ozone layer depletion. Operations began in 1991.

Currently, 17 industrialized countries and eight developing countries fund the GEF, but the list of contributors is rapidly expanding, especially among developing countries.

All core funding will be allocated in the form of grants. All developing countries with an annual per capita income of less than $4,000, which are eligible for UNDP assistance, are also eligible for GEF funds.

In addition, a few industrialized nations have elected to provide parallel funding for GEF activities outside of the core fund. Some of this co-financing is provided as concessional loans.

The GEF is co-managed by the World Bank, the UN Environment Programme (UNEP) and UNDP. The World Bank manages the Trust Fund itself and is responsible for investment projects. UNEP provides scientific backstopping. For this purpose, it has set up a Scientific and Technical Advisory Panel (STAP) of 15 eminent scientists from around the world to help formulate criteria, set priorities and coordinate research. UNDP is responsible for technical assistance, training and pre-investment studies.

At the heart of UNDP's participation in the GEF is its network of 115 field offices. The UNDP Resident Representatives play key roles in coordinating activities at the country level and ensuring that GEF programmes complement other development activities.

UNDP also administers the Small Grants Programme of the GEF, which supports community-based activities by grass-roots organizations in developing countries. With initial funding of $5 million, this programme will make awards of up to $50,000 for country specific-projects addressing one or more of the four GEF themes, and up to $250,000 for regional or interregional initiatives. UNDP will initially manage this aspect of the GEF on a pilot basis through its field offices in up to 35 countries.

From the outset, the NGO community has shown intense interest in the GEF and has helped shape its purpose, direction and procedures. Both international and local NGOs in developing countries have contributed to project identification and preparation and will also be involved in implementation, monitoring and evaluation.

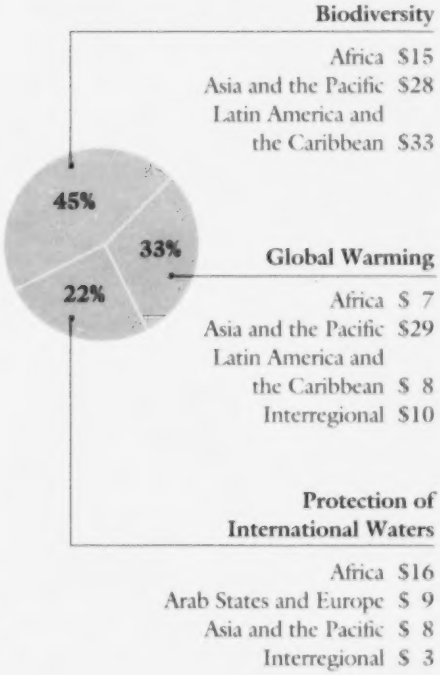
In 1991, the implementing agencies of the GEF developed a work programme of 32 technical assistance projects and 22 investment projects amounting to $470 million. The largest share of this commitment — $234 million or 50 per cent — is for the protection of biodiversity. Funding for global warming concerns amounts to $171 million while $65 million is committed to the protection of international waters.

UNDP is the lead agency in 30 of the 1991 projects with a total value of $166 million (See chart).

Additional project proposals include $6 million for in-

The GEF will support solar power to reduce emission of greenhouse gases.

UNDP's Global Environment Facility Projects (US$ millions)



dustrial water pollution control in the Gulf of Guinea, a $9.5 million regional project in Asia to reduce greenhouse gas emissions in a cost-effective manner, $2.8 million for ecosystem management and sustainable development research of the Patagonian Coastal Zone in Argentina, and a $2.6 million global project to support regional ocean training centres for policy research and joint technological development.

While the GEF is directed at global issues, participating countries, beneficiaries and the implementing agencies agree that GEF activities should be in harmony with national and local environmental needs and priorities and should enhance the potential for long-term sustainable development. This is manifested in many of the UNDP-supported projects already in the GEF portfolio. For example, a project to bring photovoltaic electricity to households and communities in rural Zimbabwe will lessen coal-based energy production and in so doing reduce emissions of global warming gases. At the same time, the project will provide rural dwellers with pollution-free electricity.

Similarly, the 16 biodiversity projects for which UNDP is the lead agency will emphasize socio-economic aspects,

GEF-supported biodiversity projects will preserve medicinal plants such as these in an Ethiopian forest.

Flowers used in anti-cancer drugs.

ensuring that rural people will benefit over the long-term from conservation measures.

The pilot phase of the Global Environment Facility has helped to stimulate the debate on funding initiatives to protect the earth. Issues being discussed include the GEF's four areas of concentration and how to widen them to be more responsive to environmental priorities in the South. Similarly, the size of the GEF is an issue if it is to satisfy more than a fraction of what will be needed to make any significant headway. A third consideration is the potential linkage of the GEF to global environmental Conventions currently being developed. Finally, there is a need to ensure that the GEF continues to evolve as an equitable partnership among industrialized and developing countries.

The Montreal Protocol: Tackling Ozone Depletion

Atmospheric ozone depletion is a global problem caused by production and emission of chlorofluorocarbons (CFCs), halons, and other chemicals containing chlorine and bromine. Ozone depletion increases the amount of harmful ultraviolet radiation that reaches the earth, affecting human health, as well as agricultural and fisheries production.

While production processes in industrialized countries have primarily caused the problem, developing countries trying to improve living standards are increasing emissions by using the harmful chemicals for refrigeration, air-conditioning and other purposes.

An international agreement called the Montreal Proto-

col came into effect on 1 January 1989. In June 1990, it established an Interim Multilateral Fund to help developing countries that are parties to the Protocol pay for technologies that will phase out the use of ozone-depleting substances by the year 2000. UNDP, the World Bank and UNEP are collaborating to implement programmes under this $200 million Fund during 1991-93.

UNDP's approved work programme for 1991 involved activities totalling $1.2 million in 16 countries — Argentina, Bangladesh, Costa Rica, Egypt, Ghana, Iran, Jordan, Kenya, Malaysia, Mexico, Nigeria, Philippines, Thailand, Trinidad and Tobago, Uruguay and Venezuela. Several of these activities are continuing into 1992.

The programmes provide on-site technical training, and preparation of feasibility and pre-investment studies and demonstration projects to regulate the use of ozone-depleting substances. For example, a pilot project was initiated to teach correct servicing procedures for refrigeration and air-conditioning units in Ghana and Kenya and thereby cut down chemical emissions. In the Philippines, a national workshop explored alternative and innovative ways of reducing the usage of ozone depleting substances.

Sustainable Development Network: Providing Information for Development

In early 1991, UNDP launched a new programme called the Sustainable Development Network (SDN) designed to provide an information-exchange link in the 115 developing countries where UNDP has offices.

Access to information and appropriate technologies is essential for developing countries to find effective ways of using their natural resources for sustainable development. In today's fast-paced world, research and technological innovations are creating new opportunities and opening viable alternative approaches to development. The SDN will build country capacities to access and manage information, which is continually being updated.

Participating developing countries will have a national SDN Directorate linking non-governmental organizations, government agencies, the private sector and universities. The SDN will focus on issues vital to the sustainability of natural resources management, urban and industrial programmes, environmental education and development policies.

Each national Network will in turn be linked to a global computer network affording all members direct electronic access to a wide range of information.

An important goal of the international SDN is to increase North-South and South-South exchanges of technologies as well as information and case studies relevant to sustainable development.

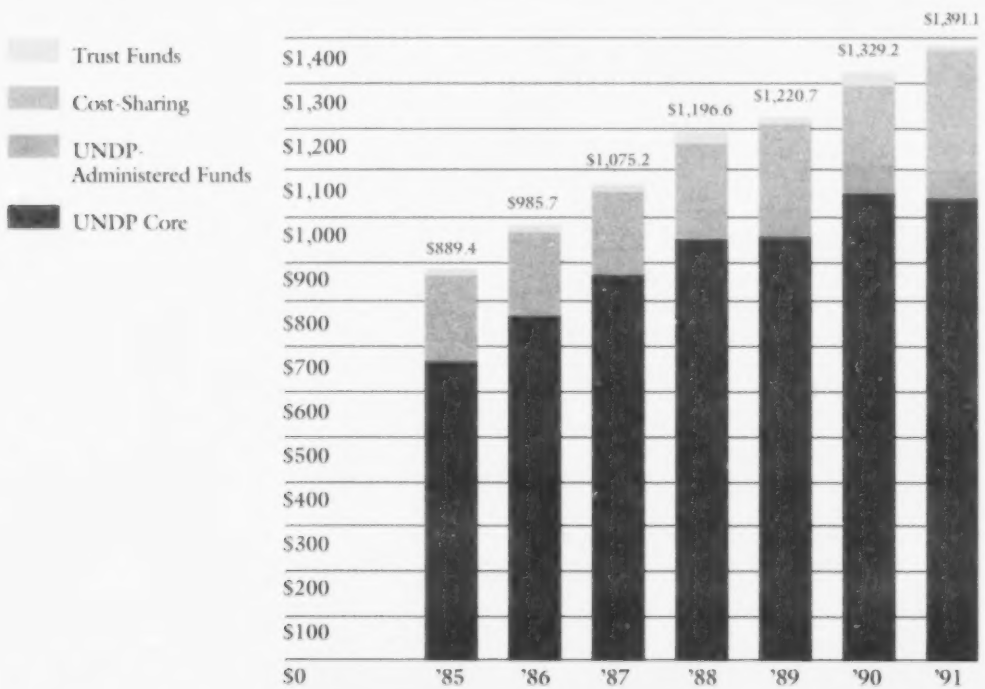
UNDP provided initial special financing of $1.2 million to the SDN in 1991. In several countries, NGOs and bilateral development assistance agencies have already expressed an interest in co-financing the network. The SDN will work closely with the UNCED Agenda 21 Information System, which is generating considerable new information on sustainable development.

THE YEAR IN REVIEW

In 1991, UNDP received nearly $1.4 billion in contributions to its various funds. Expenditure for technical cooperation during the year also amounted to $1.4 billion, distributed among field programmes, UNDP-administered funds, trust funds and programming planning. The funds were also utilized for management and coordination by 115 field offices and headquarters as well as for support costs for 31 executing agencies. As in previous years, the largest regional share of spending was in Africa, followed by Asia and the Pacific, the Arab States and Europe and Latin America and the Caribbean. Nearly half of the total funds went for project personnel, 18 per cent was spent on equipment, 14 per cent for training, and the remainder for miscellaneous costs such as operations and maintenance of equipment. A total of 1,002 new projects were approved during the year.

Although UNDP is primarily concerned with technical cooperation, some of its activities are catalysts for capital investment. One measure of the impact of this investment-related activity is the investment commitment of nearly $9 billion that was generated during 1991. The sectors which attracted the largest investment commitments included general development, natural resources, human settlements, transport and communications, agriculture and humanitarian and aid relief.

Voluntary Contributions 1985 - 1991 (US$ millions)



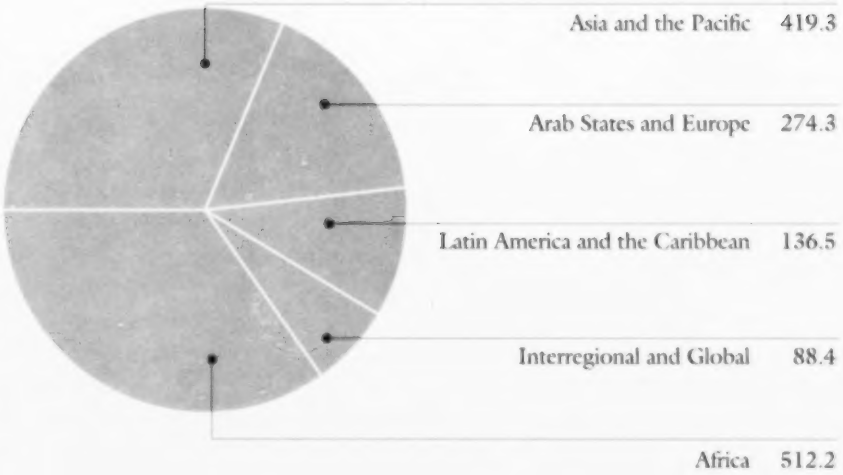
Major Contributors 1991*

(US$ millions)

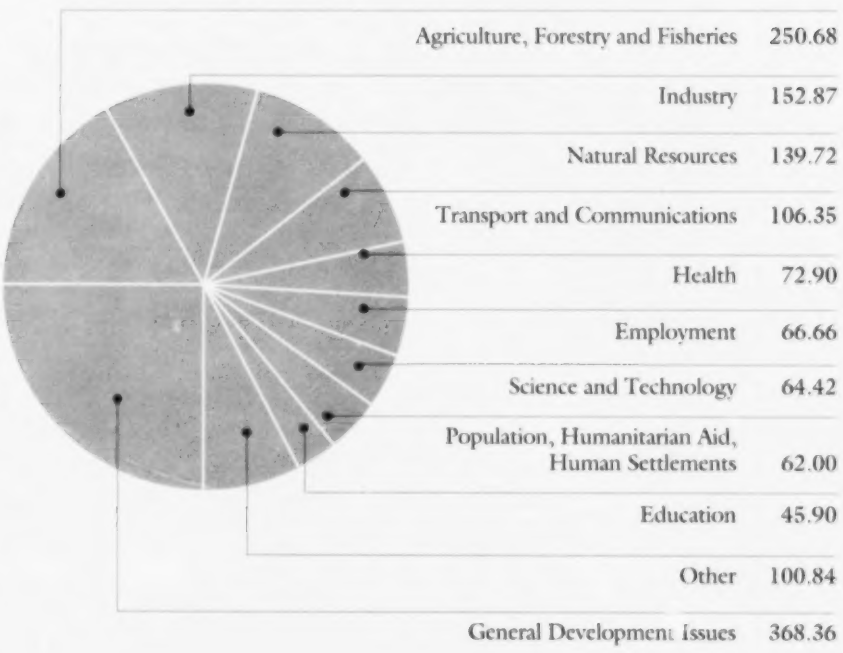
Country	
United States	109.0
Sweden	95.3
Japan	89.6
Netherlands	85.2
Norway	83.6
Denmark	79.2
Germany	76.9
Italy	70.0
Finland	59.5
Canada	56.6
France	51.5
United Kingdom	48.7
Switzerland	42.0
Belgium	16.7
Australia	13.1
Austria	11.3
Spain	8.1
Saudi Arabia	3.5
India	3.1
China	2.9
Cuba	1.8
New Zealand	1.7
USSR	1.6
Indonesia	1.1
Mexico	1.1
Myanmar	1.1
Pakistan	1.0
Republic of Korea	1.0
Sri Lanka	1.0
Thailand	1.0
Other country contributors	12.6
Subtotal	**1,030.8**
Contributions to UNDP-administered funds	63.2
Recipient Government Cost-sharing	297.1
Grand Total	**1,391.1**

**Country contributions represent pledges/payments as of 31 December 1991.*

Estimate of Project Expenditures by Region
Total 1,430.7 (US$ millions)


Asia and the Pacific 419.3
Arab States and Europe 274.3
Latin America and the Caribbean 136.5
Interregional and Global 88.4
Africa 512.2

Estimate of Project Expenditures by Sector
Total 1,430.7 (US$ millions)



RESULTS: AFRICA

In 1991, many African nations continued to examine their systems of governance, resulting in nearly 20 countries moving toward democratic regimes. These political changes added new dimensions to UNDP's role. In Liberia, with its Resident Representative acting as Special Coordinator for emergency operations, UNDP assisted in the distribution of food; in Angola, it helped coordinate emergency relief and provided technical assistance to the electoral process. ❧ The unstable political climate in some countries and the critical economic situation in the region kept Africa's overall economic growth to less than three per cent. The debt burden for sub-Saharan Africa rose to nearly $180 billion. ❧ On a more positive note, Ghana and Malawi have completed national human development strategies while seven other countries are preparing similar initiatives — Botswana, Cameroon, Cape Verde, Madagascar, Namibia, Nigeria and Senegal. Many African nations are drawing up programmes to control and manage the impact of HIV/AIDS on development. Six projects totalling $30 million, including a programme to preserve biodiversity in Eastern Africa, were approved under the Global Environment Facility.

In **Kenya** every year, 800,000 graduates compete for 150,000 job openings. To help overcome unemployment, the government with UNDP assistance is using legislative, training and credit tools to promote small enterprises, the informal sector and self-employment. Polytechnics and trade schools are being improved to serve their communities better. For example, the 24 youth polytechnics in the Kakamega district in rural western Kenya are canvassed to find potential new business starters under a UNDP/Swedish $2.5 million initiative implemented by the International Labour Organisation (ILO). Also, a million dollars in credits are available to help graduates become entrepreneurs. The loans are guaranteed by UNDP and the local community while banks closely monitor repayments. The goal is to create self-employment by the end of 1992 for over 2,000 young Kenyans graduating from these 24 schools.

Nearly two million people in **Uganda** have been infected with HIV, representing some 12 per cent of the 17 million plus population. To combat the AIDS epidemic, which is already an economic and social problem, the government has adopted a multi-faceted approach. With assistance from UNDP, it has formulated a policy and plan of action to minimize the impact of the disease on society and the economy, formed a National Alliance against AIDS, and set aside nearly $15 million of the country programme for this purpose.

UNDP and other donors have also helped establish a National Commission and Secretariat under the chairmanship of the President of Uganda to oversee strategic donor mobilization and to plan and coordinate prevention and control activities. The emphasis is on educating the public about safe sexual behaviour to help prevent the spread of HIV, training communities

UNDP is helping upgrade youth polytechnics in Kenya.

A social worker counsels African AIDS orphans.

how to care for and counsel infected persons and their families and providing support to survivors, especially orphans. Programmes will be implemented through national channels, non-governmental organizations and community-based groups. UNDP has a specific mandate in the fight against AIDS and will concentrate on the development impact of the epidemic.

A major environmental nuisance was destroying neighbourhoods in Porto Novo in **Benin**: mountains of rotting garbage in the streets. This liability was turned into assets — fertilizer and jobs — by the Centre Panafricain de Prospective Sociale (CPPS), an African NGO that supports environmental projects in several countries and has UNDP support for some of its initiatives. CPPS hired unemployed youths to sort out organic refuse, using a tractor and two trailers supplied by EMMAUS International, a French NGO. They put it in compost pits, yielding enough fertilized soil in two months to produce three crops of spinach in a year. Impressed, the city's once sceptical inhabitants are now buying compost for their own vegetable plots.

In Benin, a young man sorts out garbage for compost.

The Africa 2000 Network supports community-based projects in Africa that conserve natural resources and promote development which does not endanger the environment. The only continent-wide grouping of this kind, it operates in **Burkina Faso**, **Cameroon**, **Ghana**, **Kenya**, **Lesotho**, **Mauritania**, **Rwanda**, **Senegal**, **Tanzania**, **Uganda** and **Zimbabwe.** It provides financial and technical assistance to projects carried out by community groups, non-governmental organizations (NGOs) and technical institutions. A UNDP initiative, it has been supported by the Canadian government since its inception. Other donors include Denmark, France, Japan and Norway. A total of $25 million has been sought to support the Network for the first five years.

RESULTS: ASIA AND THE PACIFIC

Many countries in Asia experienced slow economic growth during 1991. The least developed countries and the Pacific island states fared poorly, mainly due to high oil import bills and loss of foreign exchange earnings in the aftermath of the Gulf War. ❧ In 1991, UNDP assisted four countries — Bangladesh, Indonesia, Pakistan and Viet Nam — in integrating human development initiatives into their national plans. Similar steps are being taken in Bhutan, Cambodia, India and Nepal. It has become evident that there can be no human development without an assault on poverty. UNDP brought together Resident Representatives from the region in May 1991 to draw up a Poverty Action Plan to tackle the problem. ❧ National governments sought UNDP support for issues including urban growth, HIV/AIDS, the economic ramifications of the Gulf War and sustainable development. Eight national and three regional projects valued at $66 million and covering 34 countries in the region were programmed from the Global Environment Facility — reflecting UNDP's emphasis on the environment.

Pakistan needs 750 tonnes of silk yarn every year for its silk weaving industry. Since local production meets only 20 per cent of this demand, $4.5 million is spent annually to import hybrid silk seed or eggs from China, Japan and the Republic of Korea. Now, to boost silk production, the Pakistan Forest Institute (PFI), with assistance from UNDP and FAO, has developed new lines of indigenous silkworms and higher yielding mulberry bushes on which to nurture them.

UNDP has also helped to establish two silkworm breeding centres and to train more than 200 farmers, including women, in production and breeding techniques. PFI expects sericulture expansion to generate jobs for up to 75,000 people.

Many Asian communities and grassroots organizations have, over the years, created viable settlements and improved water and waste disposal facilities for the urban poor. To further boost their efforts, UNDP has mobilized over $700,000 and is proposing an additional $4 million for the period 1992-1996 to spur non-governmental organizations and coalitions working in Asia to combat urban environmental pollution. Called Asia-Pacific 2000, the programme was inspired by an earlier UNDP programme, the Africa 2000 Network, which fights environmental degradation in rural Africa. Asia-Pacific 2000 will initially operate in **India**, **Pakistan**, **the Philippines**, **Sri Lanka** and **Thailand.** This regional project taps into community self-help groups and NGOs to replicate their successful efforts to improve Asia's urban environment.

The **Philippines** is tapping the islands of Leyte and Negros for geothermal energy as an alternative energy source so as to reduce dependence on petroleum imports. To do this, the government

sought technical assistance from UNDP and the UN Department of Technical Cooperation for Development. A strategy was drawn up to manage three geothermal fields and optimize their long-term production. There are plans to upgrade the Philippines National Oil Company and the Energy Development Corporation.

To date, geothermal energy production amounts to the equivalent of 10.5 million barrels of petroleum. An additional 305 wells are to be drilled over a seven-year period. Planners are considering the establishment of a regional training centre to share the country's experience and extend its expertise to some 18 countries in Asia and the Pacific.

Kiribati is one of seven island nations participating in the UNDP-supported Integrated Atoll Development Project (IADP). Reef passages and unsafe harbours make access to its 33 coral islands or atolls treacherous. Soils are poor, rainfall is

A farmer inspects mulberry trees in Pakistan.

The people of Kiribati are becoming self-reliant in boat-building.

The Philippines taps geothermal power as an alternative energy source.

lacking and fresh water is often scarce or contaminated. Despite such odds, Kiribati has mobilized local leaders and encouraged people to make the most of meagre resources and overcome dependence on foreign aid.

On Tamana, Kiribati's smallest island, the IADP has helped put people in charge of their own development by equipping them with skills, knowledge and the ability to analyze and solve problems. Four solutions they adopted: a well maintained solar water pumping station ensures clean drinking water; new fishing boats are being constructed; women weave mats and braid rope to earn income; and squash and cabbages are cultivated with traditional root crops to improve nutrition. Other remote communities in the **Cook Islands**, **the Federated States of Micronesia**, **the Maldives**, **the Marshall Islands**, **Tokelau** and **Tuvalu** also benefit from the IADP, which is executed by UNDP's Office for Project Services.

RESULTS: LATIN AMERICA AND THE CARIBBEAN

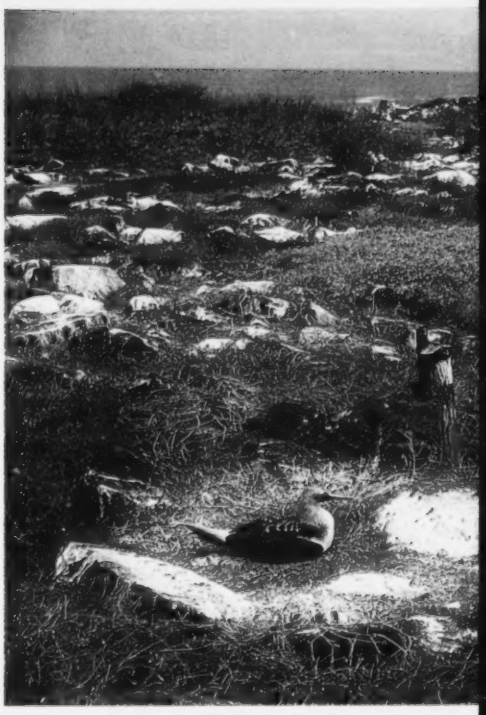
Countries in Latin America and the Caribbean took a strong regional stand on balancing development needs with environmental protection. This position was outlined in a report entitled *Our Own Agenda*, as part of regional preparations for the Earth Summit in June 1992. The report was prepared by the Latin American and Caribbean Commission on Development and the Environment, which was convened by UNDP and the InterAmerican Development Bank with the collaboration of the Economic Commission for Latin America and the Caribbean and the United Nations Environment Programme. ❧ The challenges for the region in the next decade are how to achieve productivity with social equity, manage external debt and stabilize their economies. UNDP will continue to assist governments to improve macroeconomic management, especially through projects tackling critical poverty, rural development and environmental issues.

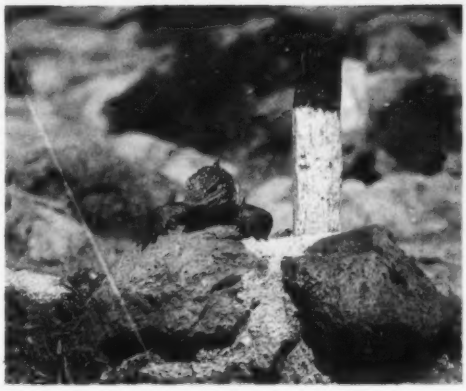
The Galápagos archipelago, an island province of **Ecuador**, was one of the first spots on earth to be declared a Natural World Heritage site in 1978 because of its rich biodiversity. The area is also an important source of foreign exchange for Ecuador. About a third of the nearly $300 million of Ecuador's annual tourism revenue comes from the Galápagos. But the region's wildlife and ecosystems are being threatened by economic development due to growing human settlements spurred by tourism. Of the 14 sub-species of giant tortoises, three are extinct, largely due to abuses by man. Iguanas have disappeared from some islands. Black coral, once abundant, has virtually disappeared. Rapidly growing towns are causing alarming environmental degradation and coastal pollution.

New policy recommendations for tourism and conservation, made with technical support from UNDP, have been approved by the Government of Ecuador. Steps have already been taken to limit the number of tour boats, to ban the transport of plants and animals to and from the islands, and to control and preserve natural species.

Reform and modernization of the state has been a central theme in Latin America since the mid-1980s. Today, a number of Latin American countries are streamlining their governments, moving toward decentralization and embarking on the privatization of ailing public enterprises. UNDP is supporting the Latin American Centre of Administration for Development (CLAD), which has been entrusted with the project, to assist governments in this transformation.

The changes have improved policy-making and public sector management. Policy-making units have been created in the presidential offices of **Venezuela** and **Chile.** A regional school for training in social policy management has been created.





A land iguana on one of the Galápagos islands.

The Galápagos archipelago draws foreign exchange for Ecuador.

CLAD has helped **Uruguay** adopt laws on civil service reform and advised the governments of **Colombia** and **Peru**, among others, on the decentralization process.

Government housing programmes in **Costa Rica** have traditionally tended to address the needs of urban dwellers even though 53 per cent of the population is rural. With no access to credit for housing, the urban poor could not afford these houses, which were made of reinforced steel and other expensive construction materials. Other houses built under these programmes used wood-based building materials, thus destroying precious forests in the country.

A hydroponics farmer obtained credit through a UNDP-assisted project.

UNDP collaborated with the Costa Rican government to provide low-cost houses constructed from bamboo on a self-help basis. Further assistance was provided by the Netherlands, United Nations Centre for Human Settlements (Habitat) and ILO. More than 500 such houses were built in the first phase. In 1991, UNDP provided $2.6 million to construct another 2,800 low-cost bamboo houses. The new houses will benefit nearly 12,000 low-income Costa Ricans, mainly in the rural areas. Sixty per cent of the houses under construction will benefit households headed by women. The introduction of bamboo has not only helped to reduce the cost of housing by 25 per cent, it has also stemmed environmental degradation through soil conservation.

The Caribbean Project Development Facility (CPDF) was launched in 1982 to assist existing and prospective entrepreneurs prepare business proposals and raise funds for investment projects with a development impact on countries in the region. It is funded by UNDP and other donors and managed by the International Finance Corporation of the World Bank. Since its inception, CPDF has helped prepare 100 project proposals in 19 countries and has raised over $132 million in loans and equity financing for its clients. In **Jamaica**, it helped obtain financing for a coffee producing company and a cooperative of orange growers. Other clients include developers of hotels in the **Dominican Republic**, **Grenada** and **Guatemala.**

CPDF assisted the owner of a hydroponics farm in **Anguilla** in devising a management plan and obtaining a loan, and negotiated credit for a banana plantation in **Costa Rica.** In 1991, CPDF's name was changed to the Business Advisory Service for Latin America and the Caribbean (CBAS) to reflect the expansion of the organization's operations in Central America.

RESULTS: ARAB STATES AND EUROPE

In **Egypt**, intensified production of vegetables and fruit under plastic greenhouses promises to help the government's efforts to increase agricultural production by 3.5 per cent a year. With funding from UNDP and technical assistance from FAO, the Dokki Research and Training Centre in Cairo has trained 800 specialists to apply techniques of protected agriculture. This system should lead to sharp increases in land productivity and valuable savings. Protected cultivation uses controlled amounts of fertilizer and requires two thirds less water than growing vegetables in open fields. The system should also result in higher profits for farmers and all-year-round production.

In addition to internal conflict, **Sudan**, Africa's largest country, was again threatened by famine in 1991. To assist millions of starving Sudanese in Northern Kordofan and Darfur, the two areas hardest hit by drought, the government and UNDP undertook a $15 million Special UN Drought Operation for the Sudan (SUNDOS). More than a dozen UN agencies and international relief organizations cooperated in this emergency relief effort, financed and coordinated by UNDP. Food was delivered to food-for-work projects, and community efforts installed dozens of water pumps and latrines, built numerous hospitals, and rehabilitated schools.

Six years ago, Sudan saw mass migrations from drought areas to huge camps, where hundreds died from epidemics. SUNDOS aimed at preventing migration while enabling people to work for their own development. Related Area Development Projects spawned activities to maintain arable land, train farmers in sustainable agricultural practices and generate income.

The Gulf War caused human and environmental devastation in the region. Following the conflict, UNDP reopened the Kuwait field office and undertook an immediate programming exercise on technical cooperation with the government. In Iraq, UNDP provided logistical support for humanitarian and relief efforts. UNDP also allocated $4 million to assist 25 countries mitigate the negative impact of the emergency and revive economic activities.

In Eastern and Central Europe, UNDP moved decisively to assist governments in devising strategies to move from centrally-planned to market-oriented economies. It opened a field office in Albania in 1991 and responded to the country's economic crisis by organizing a UN Interagency Humanitarian mission to assess the most urgent needs. Towards the end of the year, Portugal graduated from recipient to donor status in UNDP. With funding from the Global Environment Facility and donor nations, a programme was drawn up to find long-term solutions to pollution in the Danube River and its basin.

UNDP is helping Czechoslovakia with economic reform.

Every year, between 10,000 and 15,000 hectares of land in **Tunisia** are lost largely due to harsh agricultural practices and overgrazing. Only one third of the land area is cultivated. The rest is threatened by desertification. Although soil and water conservation remain government priorities, the real battle has been to persuade farmers to change their ways.

Now, UNDP funding and technical support from FAO have helped Tunisia educate farmers, explaining concepts to them individually for the first time. Farmers are now using ploughing techniques that reduce erosion and improve filtration of water. They are also growing olive trees and acacia and cacti, which are good animal feed. At the same time, more than 50 Tunisian technicians have been trained to interpret aerial photographs and analyze soil and sediment samples so as to monitor the condition of Tunisia's land.

Villagers build a new well funded by the SUNDOS programme.

Protected cultivation in Egypt will increase agricultural production.

The regional Mediterranean Environment Technical Assistance Programme took off in 1991 by establishing networks to combat pollution in the Mediterranean. This project is an excellent example of coordination among donors, bringing together UNDP, the World Bank, the European Investment Bank and the European Community in a $15 million programme.

The interregional importance of environment was highlighted with the establishment of the Centre for Environment and Development in the Arab Region and Europe, based in Cairo. The Centre will spearhead technical cooperation for regional environmental initiatives and be the hub of networks of national and regional institutions. This $5.5 million initiative has brought a matching amount of $6.8 million from the Arab Fund for Economic and Social Development. The Centre hopes to raise a further $60 million for its endowment.

Central and Eastern European governments are developing strategies for radical economic transformation, with privatization as the cornerstone of economic reform. In 1991, representatives of **Bulgaria**, **Czechoslovakia**, **Hungary**, **Poland**, **Romania** and **Yugoslavia** met in Budapest and formally established a Central/Eastern European Privatization Network. This unique regional association brings together agencies, ministries and institutions responsible for privatization programmes in individual member countries. It enables key leaders in each country to learn from privatization experiences in other countries and regions in a fast and responsive manner.

UNDP, with its experience in assisting transitional economies and developing privatization models, is helping commercial institutions and business leaders in the region privatize and restructure enterprise. Workshops have been held to acquaint participants with entrepreneurial skills and issues related to privatization practices.

GLOBAL AND INTERREGIONAL

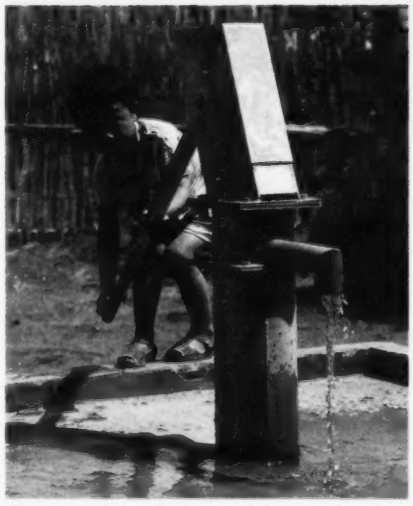
UNDP's Division for Global and Interregional Programmes (DGIP) fosters international cooperation for development and facilitates access to advanced scientific knowledge. Its Global Programme sponsors international research, primarily on health and environmentally safe food production, in order to make the most up-to-date scientific data available to developing countries. The Interregional Programme is designed to disseminate and apply research results in developing countries, and promotes the sharing and exchange of knowledge and skills.

The Global Programme continued its support of agricultural research around the world. Scientists working for the International Center for Living Aquatic Resources Management (ICLARM) and the **Philippine** government are breeding a faster-growing strain of tilapia that could revolutionize fish farming throughout the developing world. Fish is already the main source of animal protein for more than one billion people. The tilapias are called "aquatic chickens" because they are hardy, require little attention and can be grown in flooded rice paddies as well as small back yard ponds of subsistence farmers.

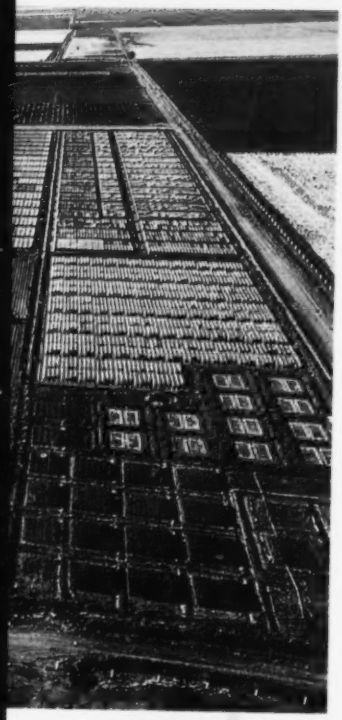
Using germplasm of Quality Protein Maize (QPM) from the International Maize and Wheat Improvement Center (CIMMYT) in **Mexico**, plant breeders in **Brazil** developed the BR-451 strain that is compatible with the local environment. QPM provides greater nutrition, for humans and animals alike, than other types of maize by delivering much larger quantities of lysine and tryptophan, two essential amino acids. Studies show that using BR-451 to replace regular maize and some of the soybean meal used in pig feed can cut production costs by nearly $20 a tonne. CIMMYT and ICLARM are among the nine non-profit agricultural research centres around the world supported in 1991 by $9.7 million in funding from DGIP.

Health is another key area of DGIP support. The UNDP/WHO/World Bank Special Programme of Research and Training in Tropical Diseases (TDR) costs $30 million a year. It has developed new weapons in the war against tropical diseases at the rate of about five a year since it was launched in 1974. In **The Gambia**, TDR backed the development of bed nets impregnated with permethrin, an insecticide harmless to humans but deadly to mosquitoes. The incidence of malaria dropped by 70 per cent. In **India,** TDR-sponsored research came up with a mix of the drugs dapsone, rifampicin and clofazimine that cures even the most acute case of leprosy in three years.

Over the past five years, the UNDP-World Bank Water and Sanitation Program participated in the preparation of $4 billion in investments targeted to reach more than 100 million people, primarily the poor in rural and peri-urban areas. For example, it is providing technical support for a new rural water and sanitation project in **China** that will benefit more than nine million people, many of whom are from low-income groups. China, which is investing $90 million in the project, will receive a $110-million soft loan from the Bank's International Development Association. This is the Bank's first water sector loan to promote low-cost technologies and to include rural sanitation and hygiene edu-



A low-cost handpump in rural China.



A maize and wheat research station in Mexico.

cation. This is one example of how DGIP's cooperation with the World Bank in this over $17 million-a-year programme has influenced Bank lending policies.

DGIP responds rapidly to new, unforeseen development challenges, such as the HIV/AIDS epidemic which is now a major threat to the developing world. The WHO Global Programme on AIDS (WHO/GPA) estimates that one in every 250 adults in the world is infected with the HIV virus. In **sub-Saharan Africa**, where the infection rate is one in 40, AIDS has become the leading cause of death of young men and is second to maternal mortality in young women. The vulnerability of women to HIV is related to deeply embedded social and gender inequalities which impair their ability to deal effectively with the needs and risks created by the epidemic.

The epidemic has an impact in a wide range of areas outside the health sector, including social and economic development, education and behaviour, labour and law enforcement. Therefore WHO and UNDP entered into an Alliance to Combat AIDS in 1988, building on comparative advantages of both organizations. Since 1987, UNDP has provided more than $30 million for national prevention and control programmes.

The Philippines experiments with faster-growing strain of tilapia.

Increasingly, UNDP is being called on for broad-based assistance to strengthen national capacities to respond to the epidemic in a comprehensive and integrated manner. Working with WHO, UN agencies, bilateral donors and non-governmental organizations, UNDP's new HIV and Development Programme has initiated a broad spectrum of activities. These include a training programme on the epidemic as a development concern, networking with community-based and professional groups on activities related to behaviour change and support systems to minimize the psychological and social impact of the epidemic, and strengthening institutions to address its inevitable economic and social consequences.

Often, cumbersome and inefficient customs procedures obstruct the growth of trade in developing countries, resulting in a loss of revenue. For example, certain Caribbean countries count on customs receipts for more than 50 per cent of all public revenue. A highly successful software program called Automated Systems for Customs Data (ASYCUDA) is being tested and refined under the UN Conference on Trade and Development's Trade Facilitation Programme, which in 1991 received more than $15 million from UNDP. ASYCUDA is operating or being installed in 41 countries, and 40 more have expressed interest. The programme blends interregional funding with both UNDP regional and country funds. In practically every instance UNDP funding leveraged an equal amount or more from other bilateral and multilateral sources.

ASYCUDA provides national authorities with trade statistics that allow them to make quick decisions and also harmonizes statistical reporting among countries. But its biggest contributions are to raise revenues and clear a potential bottleneck to trade. In **Mauritius**, ASYCUDA reduced processing time of customs declarations from one or two days to 30 minutes.

ASSOCIATED FUNDS AND PROGRAMMES

The United Nations Development Programme is the central funding, planning and coordinating body for technical cooperation in the UN system. Six associated programmes, each funded separately through voluntary contributions, provide specific services through the UNDP network.

UNSO is involved in reafforestation projects in Africa.

UN Volunteers help in emergency relief in Iraq.

The United Nations Capital Development Fund (UNCDF), which turned 25 this year, provides small-scale capital assistance to least developed countries (LDCs) to stimulate income-generating activities and help the poor meet basic needs. As part of its anniversary celebration, the Fund and the Government of Japan jointly sponsored the Tokyo Forum on Development Strategies for the LDCs in the 1990s, which stimulated an exchange of views on assistance and development policies for LDCs. The forum was a follow-up to the Second United Nations Conference on LDCs held in Paris in 1990.

In 1991, UNCDF was engaged in 251 projects valued at $438 million. An increasing number of projects — over 50 per cent in 1991 — address the environmental dimension of development. In Burundi, for instance, UNCDF has allocated $1.3 million for an agricultural project, including reafforestation, to generate employment in the country. Two irrigation projects in the Lao People's Democratic Republic are aimed at boosting rice production and eliminating slash-and-burn cultivation on fragile mountain slopes. In Bolivia, UNCDF is assisting in range management for the establishment of an alpaca wool processing industry. In meeting basic needs, UNCDF is also involved in containing urban sprawl and providing decent living conditions through projects in 12 countries in the Arab States, Asia, Africa and Latin America.

The **United Nations Sudano-Sahelian Office (UNSO),** in combatting drought, desertification and land degradation in 22 Sudano-Sahelian countries in Africa, concentrates on promoting and ensuring the sustainable utilization of natural resources. In 1991, UNSO was involved in 140 programmes and projects in natural resources management. To incorporate the environmental dimension, UNSO has steered away from sectoral-based projects towards integrated human development and resource management programmes. Special emphasis is given to strengthening institutions for environmental planning and management, and in 1991, UNSO assisted 19 of the Sudano-Sahelian countries in such capacity building.

UNSO has been active in regional preparations for the United Nations Conference on Environment and Development (UNCED) in June 1992. These culminated in regional priorities, including drought and desertification, as set out in the Sudano-Sahelian Platform of Action, which served as an important input to the African Common Position on the issues to be raised at UNCED.

UNSO's ongoing field activities throughout the region include the provision of tree seedlings, village land and range management and land rehabilitation. During the 1990s, UNSO will continue to assist people in the Sudano-Sahelian region regain control over their environment and improve the quality of their lives.

The **United Nations Development Fund for Women (UNIFEM)** provides direct financial and technical support to low-income women in developing countries to improve their quality of life. It also funds activities that include women in decision-making of mainstream development projects. Total pledges for 1992 are estimated at $11 million, an eight per cent increase over the previous year.

UNIFEM funds have brought specific benefits to women in environmental projects in many parts of the world. A sericulture project in 12 villages in Udaipur in the Indian state of Rajasthan has empowered underprivileged tribal women economically and improved the health and nutrition of their children and families. The ecologically-sound methodologies from this project will be replicated in a World Bank programme in 17 states in India. UNIFEM assisted the Al-Habeel community in Yemen to build 22 biogas digesters which now supply 85 per cent of household power needs. This eased pressure on community woodlots and freed women from the burden of gathering wood for fuel. A number of them have been trained to build and maintain biogas units. In Tempoal, Mexico, a group of women made history when they established the country's first regional rural women's organization, the Asociacion de Mujeres Campesinas de la Huasteca, A.C. These women now own and operate their own metal workshop and produce handpumps that provide uncontaminated water for the entire community. The centre has been so successful that talks are underway for the creation of a research centre — managed by women — to adapt appropriate technologies for poor women. Since women are usually the most affected victims of environmental degradation, UNIFEM is promoting the integration of women in the environmental debate at all levels.

The **United Nations Fund for Science and Technology for Development (UNFSTD)** has ongoing projects in such areas as science and technology policy, technology innovation and entrepreneurship, information technology, quality control and maintenance, and renewable energy. The Fund helps developing countries make use of the latest advances in science and technology. Through one of its most successful programmes, several hundred non-functioning scientific instruments in the southern African region have been repaired and returned to use. To continue this work, participating countries have created a Network of Users of Scientific Equipment in Southern Africa (NUSESA). Similar programmes to reduce the staggering cost of inadequate maintenance are currently being launched in West Africa and Southern Asia.

Through the Fund's Transfer of Knowledge Through Expatriate Nationals (TOKTEN) programme, more than 3,600 professionals have volunteered to return to their countries of origin for short-term consultancy assignments. A total of 32 developing countries are benefiting from this programme, for which UNDP has committed nearly $16 million. An international workshop on TOKTEN is held once every three years to discuss developing country needs, share experiences relating to utilizing skilled nationals abroad and review measures for enhancing the programme. The fifth such workshop took place in the Philippines in November 1991.

During 1991, the **United Nations Revolving Fund for Natural Resources Exploration (UNRFNRE)** completed exploration activities in Bolivia, China and Guatemala. In China, the search resulted in the delineation of a pyrophyllite deposit. Gold was the main target in Bolivia and Guatemala. In the Philippines, chromite exploration has led to the first replenishment payments to the Fund. Following the discovery of gold and silver deposits in Honduras, UNRFNRE helped the government organize international competitive bidding to attract capable mining companies to extract the ore. Of the 26 projects completed by the Fund since its inception in 1973, eight have resulted in significant discovery of mineral reserves. Several other projects are currently awaiting financing.

The **United Nations Volunteers (UNVs)** commemorated 20 years of operation in 1991. A total of 2,916 UNVs from over 100 nations served in 119 developing countries during the year. In the aftermath of the Persian Gulf War, 80 UNV specialists were despatched to Iran, Iraq, Syria and Turkey to help in emergency operations, rehabilitation and relief amongst displaced persons and refugees, especially the Kurds. Most UNVs impart specialized technical, economic and social skills to the communities and institutions they work with in developing countries. A significant number work in the agricultural sector, as in Malawi, where UNVs are assisting women farmers expand crop production for self-sufficiency. In Botswana, UNV engineers, well and dam construction specialists are helping locate, design and construct small dams as part of a water resources management project. In Poland, 23 UNVs — from financial experts to economists — have assisted municipalities and ministries in privatization efforts. UNVs are training communities in Afghanistan to care for the mentally disabled. The year ended with the third UNV Intergovernmental Meeting, which endorsed the increased emphasis of UNVs working with communities and grass-roots organizations.

DISTRIBUTION OF UNDP RESOURCES

(US$ Thousands)

UNDP's resources are allocated to countries on the basis of need according to an internationally agreed formula. The indicative planning figure, or IPF, is the projected amount that will be available for programme activities in a country over a five-year period. The calculations are made on the basis of population, per capita gross national product (GNP), and additional criteria which weigh in favour of countries facing the greatest geographic disadvantages, such as land-locked countries, or economic difficulties, such as high debt service costs and deteriorating terms of trade.

Countries and Territories	First Cycle 1972-1976	Second Cycle 1977-1981	Third Cycle 1982-1986	Fourth Cycle* 1987-1991	Fifth Cycle 1992-1996
AFRICA					
Angola	3,000	10,950	22,825	24,525	30,880
Benin	7,500	16,250	18,425	29,188	32,504
Botswana	5,800	8,500	4,675	6,483	7,251
Burkina Faso	10,700	23,750	30,250	46,900	51,053
Burundi	10,000	18,750	26,675	33,622	48,882
Cameroon	15,000	17,250	15,125	16,819	15,137
Cape Verde	1,500	4,000	6,188	6,673	7,219
Central African Republic	7,500	11,750	16,225	24,825	26,919
Chad	7,500	19,000	28,600	42,254	46,330
Comoros	672	7,200	6,600	7,862	11,553
Congo	7,500	7,500	6,050	6,501	6,060
Côte d'Ivoire	15,000	15,000	9,075	18,008	16,275
Equatorial Guinea	3,500	4,258	7,013	10,382	11,231
Ethiopia	20,000	42,000	61,600	91,061	117,782
Gabon	7,500	7,500	3,300	2,837	2,269
Gambia	2,500	7,000	7,838	12,786	25,759
Ghana	15,000	19,000	22,000	35,811	42,040
Guinea	15,000	21,750	24,475	33,096	35,801
Guinea-Bissau	2,500	6,120	11,962	19,141	27,592
Kenya	15,000	27,500	28,600	40,767	46,095
Lesotho	8,300	13,250	12,238	14,159	19,607
Liberia	10,000	10,000	7,425	13,424	21,498
Madagascar	10,000	23,750	26,950	40,659	55,137
Malawi	7,500	19,750	29,150	45,889	62,134
Mali	10,000	24,000	35,750	50,279	57,634
Mauritania	5,000	9,750	13,475	15,561	23,222
Mauritius	5,000	5,250	3,850	4,345	3,910
Mozambique	4,500	19,000	40,700	66,009	92,969
Namibia	1,000	7,750	4,263	11,026	11,862
Niger	10,000	19,750	24,750	37,326	53,167
Nigeria	30,000	45,500	30,250	38,741	119,993
Rwanda	10,000	19,750	24,750	36,846	42,973
São Tomé and Príncipe	500	1,500	1,200	3,288	4,200
Senegal	10,000	11,750	18,150	29,010	31,381
Seychelles	751	1,600	1,200	1,289	1,031
Sierra Leone	7,500	13,250	19,195	23,223	41,426
Swaziland	5,700	5,750	3,162	5,058	4,552
Togo	10,000	11,000	12,953	24,776	28,699
Uganda	10,000	30,000	32,725	50,433	74,122
United Republic of Tanzania	15,000	33,500	39,600	57,512	99,811
Zaire	20,000	34,500	43,450	56,933	67,335
Zambia	15,000	15,000	11,687	20,712	31,645
Zimbabwe	—	5,600	13,337	18,773	23,796
Africa subtotals	***378,423***	***675,978***	***807,711***	***1,174,812***	***1,580,735***
ASIA AND THE PACIFIC					
Afghanistan	20,000	38,000	39,325	60,436	70,039
Bangladesh	18,500	65,500	110,550	135,668	163,173
Bhutan	2,500	12,250	20,075	25,167	27,892
Brunei	49	200	584	502	0††
Cambodia	10,000	25,500	14,025	14,025	41,343

**Fourth cycle figures reflect the additional distribution of $490 million among country and intercountry IPFs.*

†† The IPFs for these countries have not yet been formally established, pending review by the Governing Council.

Countries and Territories	First Cycle 1972-1976	Second Cycle 1977-1981	Third Cycle 1982-1986	Fourth Cycle 1987-1991	Fifth Cycle 1992-1996
China	—	15,000	78,100	163,331	176,660
Cook Islands	688	1,400	1,120	1,203	1,083
Democratic People's Republic of Korea	—	8,850	13,612	17,334	21,742
Fiji	5,000	5,000	2,750	2,955	2,659
India	50,000	97,000	138,600	156,120	156,120
Indonesia	35,000	69,500	58,300	65,686	81,384
Iran (Islamic Republic of)	20,000	20,000	11,000	11,819	9,455
Kiribati	500	1,140	1,040	2,101	2,326
Lao People's Democratic Republic	5,000	17,750	28,875	37,969	42,156
Malaysia	15,000	15,000	8,250	8,864	7,091
Maldives	1,000	2,500	3,850	5,142	6,820
Mongolia	10,000	10,000	5,500	7,837	9,781
Myanmar	15,000	41,500	56,100	83,401	93,435
Nauru	—	60	48	52	0††
Nepal	15,000	32,500	53,900	68,368	77,772
Niue	45	1,000	800	860	774
Pakistan	18,500	52,500	64,900	73,299	87,638
Papua New Guinea	5,000	8,750	7,425	11,646	10,481
Philippines	20,000	30,500	25,300	29,962	39,519
Republic of Korea	15,000	18,000	9,900	10,637	4,165†
Samoa	5,000	5,250	2,888	4,503	4,871
Singapore	7,500	7,500	4,125	3,546	0††
Solomon Islands	1,000	3,145	2,200	3,745	3,745
Sri Lanka	15,000	31,500	41,800	45,077	45,077
Territory of Hong Kong	500	500	275	295	0††
Thailand	15,000	29,500	23,650	29,020	26,118
Tokelau	—	150	760	1,197	1,197
Tonga	1,000	2,128	1,375	1,656	1,656
Trust Territory of Pacific Islands	—	1,000	800	3,034	3,034
Tuvalu	5	1,140	912	1,129	1,657
Vanuatu	588	2,000	1,200	1,906	2,291
Viet Nam	10,000	44,000	64,900	83,553	92,774
Asia and Pacific subtotals	***337,375***	***717,213***	***898,814***	***1,173,047***	***1,315,931***
LATIN AMERICA AND THE CARIBBEAN					
Anguilla	—	—	640	1,066	1,066
Antigua and Barbuda	985	1,765	1,200	1,289	1,160
Argentina	20,000	20,000	11,000	11,819	9,455
Aruba	—	—	455	391	153†
Bahamas	2,184	2,400	1,320	1,418	0††
Barbados	2,500	2,500	1,375	1,477	579†
Belize	1,000	1,650	1,200	1,289	1,031
Bermuda	—	700	440	378	0††
Bolivia	15,000	15,500	10,725	23,554	23,713
Brazil	30,000	30,000	16,500	17,729	14,183
British Virgin Islands	309	300	240	258	102†
Cayman Islands	620	700	448	481	385
Chile	20,000	20,000	11,000	11,819	9,455
Colombia	20,000	20,000	12,100	13,001	11,701
Costa Rica	5,000	5,000	2,750	6,026	4,821
Cuba	10,000	13,500	11,275	12,115	10,903
Dominica	704	1,362	1,265	1,359	1,223
Dominican Republic	7,500	7,500	6,600	8,362	15,598
Ecuador	15,000	15,000	8,250	8,864	11,292
El Salvador	5,000	9,250	8,388	10,769	9,692
Grenada	980	1,880	1,200	1,289	1,289
Guatemala	7,500	8,000	7,150	7,682	10,402
Guyana	5,000	5,000	4,675	10,086	13,996
Haiti	6,000	18,750	20,900	34,831	37,678
Honduras	5,000	9,250	8,800	11,565	10,408
Jamaica	7,500	7,500	4,125	4,432	3,989
Mexico	20,000	20,000	11,000	11,819	9,455
Montserrat	283	400	560	602	481
Netherlands Antilles	1,837	1,900	745	640	251†
Nicaragua	5,000	5,323	5,225	10,405	13,646
Panama	7,500	7,500	4,125	4,432	3,546
Paraguay	7,500	7,500	5,362	5,761	5,185
Peru	15,000	15,000	13,750	14,774	13,297
Saint Helena	—	—	264	473	1,405
Saint Kitts and Nevis	690	700	1,200	1,289	1,160

†The IPFs for these net contributor countries are provisional.

Countries and Territories	First Cycle 1972-1976	Second Cycle 1977-1981	Third Cycle 1982-1986	Fourth Cycle 1987-1991	Fifth Cycle 1992-1996
Saint Lucia	902	1,765	1,200	1,289	1,160
Saint Vincent and the Grenadines	685	1,420	1,788	1,921	1,921
Suriname	2,500	3,500	1,925	2,068	810†
Trinidad and Tobago	5,000	5,000	2,750	2,364	1,891
Turks and Caicos Islands	332	400	680	971	971
Uruguay	10,000	10,000	5,500	5,910	4,728
Venezuela	10,000	10,000	5,500	4,728	3,782
Latin America and Caribbean subtotals	***275,011***	***307,915***	***215,595***	***272,800***	***267,968***
ARAB STATES AND EUROPE					
Albania	1,000	4,250	5,638	6,648	5,983
Algeria	20,000	20,000	11,000	11,819	9,455
Bahrain	2,500	2,500	1,375	1,182	462†
Bulgaria	7,500	7,500	3,300	3,546	2,837
Cyprus	5,000	5,000	2,750	2,955	1155†
Czech and Slovak Federal Republic	2,500	2,500	1,375	—	1,602†
Democratic Yemen	10,000	14,500	12,238	15,438	**
Djibouti	—	2,200	2,887	3,746	3,647
Egypt	27,500	31,500	30,800	39,432	39,432
Hungary	7,500	3,500	1,925	2,068	1,776
Iraq	15,000	15,000	8,250	8,864	7,091
Jordan	15,000	15,000	8,250	8,864	7,091
Lebanon	10,000	10,000	5,500	8,562	7,706
Libyan Arab Jamahiriya	5,000	5,000	2,750	2,364	954†
Malta	2,500	2,500	1,375	1,477	579†
Morocco	20,000	20,000	14,850	22,385	20,147
Oman	4,000	4,000	2,200	1,891	740†
Poland	7,500	7,500	3,300	4,432	3,546
Qatar	1,500	—	—	709	0††
Republic of Yemen**	—	—	—	—	42,590
Romania	7,500	7,500	4,125	4,432	3,546
Saudi Arabia	10,000	10,000	5,500	4,728	0††
Somalia	15,000	18,250	26,400	35,297	57,032
Sudan	20,000	33,000	32,175	46,744	50,565
Syrian Arab Republic	15,000	15,000	8,250	8,864	11,794
Tunisia	15,000	15,000	8,250	8,864	7,978
Turkey	20,000	20,000	11,000	14,691	13,222
United Arab Emirates	1,000	1,000	550	591	0††
Yemen Arab Republic	15,000	23,750	16,500	27,150	**
Yugoslavia	7,500	7,500	4,125	4,432	3,546
Arab States and Europe subtotals	***290,000***	***323,450***	***236,638***	***302,176***	***304,475***
Countries that have relinquished IPFs					
Greece	7,500	7,500	3,300	—	—
Iceland	1,000	—	—	—	—
Israel	5,000	—	—	—	—
Kuwait	1,000	—	—	—	—
Portugal	—	4,000	2,200	2,364	—
Spain	5,000	—	—	—	—
Subtotals	***19,500***	***11,500***	***5,500***	***2,364***	**—**
Total Country IPFs	**1,300,309**	**2,036,056**	**2,164,258**	**2,925,199**	**3,469,107**
Africa Regional	71,200	109,400	155,870	226,070	181,600
Asia and the Pacific Regional	40,700	95,700	162,855	211,140	151,400
Latin America and the Caribbean Regional	61,500	63,000	42,075	57,340	30,700
Arab States and Europe Regional	19,700	44,300	40,700	57,440	35,200
Regional IPF Totals:	**193,100**	**312,400**	**401,500**	**551,990**	**398,900**
Interregional IPF	22,400	33,600	40,425	55,400	67,000
Global IPF	15,500	50,200	63,140	106,600	112,000
National Liberation Movements	—	20,500	8,250	11,971	12,000
Caribbean Multi-Island	4,489	7,000	2,484	2,934	3,500
Pacific Multi-Island	—	—	—	2,934	3,500
Unallocated	6,191	2,610	—	18,359	100,000
Grand Totals	***1,541,989***	***2,462,366***	***2,680,057***	***3,675,386***	***4,162,699***

***The IPFs for the former Democratic Yemen and Yemen Arab Republic have been merged and are now listed under the Republic of Yemen.*

Executing Agencies of the United Nations Development Programme

African Development Bank (AfDB)

Arab Fund for Economic and Social Development (AFESD)

Asian Development Bank (AsDB)

Caribbean Development Bank (CDB)

Economic and Social Commission for Asia and the Pacific (ESCAP)

Economic and Social Commission for Western Asia (ESCWA)

Economic Commission for Africa (ECA)

Economic Commission for Europe (ECE)

Economic Commission for Latin America and the Caribbean (ECLAC)

Food and Agriculture Organization of the United Nations (FAO)

InterAmerican Development Bank (IDB)

International Atomic Energy Agency (IAEA)

International Civil Aviation Organization (ICAO)

International Finance Corporation (IFC)

International Labour Organisation (ILO)

International Maritime Organization (IMO)

International Monetary Fund (IMF)

International Telecommunication Union (ITU)

International Trade Centre (ITC)

Islamic Development Bank (IsDB)

United Nations

United Nations Centre for Human Settlements (Habitat)

United Nations Centre on Transnational Corporations (UNCTC)

United Nations Conference on Trade and Development (UNCTAD)

United Nations Educational, Scientific and Cultural Organization (UNESCO)

United Nations Industrial Development Organization (UNIDO)

United Nations Institute for Training and Research (UNITAR)

Universal Postal Union (UPU)

World Bank (IBRD)

World Health Organization (WHO)

World Intellectual Property Organization (WIPO)

World Meteorological Organization (WMO)

World Tourism Organization (WTO)

Other Participating Organizations

International Fund for Agricultural Development (IFAD)

Office of the United Nations Disaster Relief Coordinator (UNDRO)

Office of the United Nations High Commissioner for Refugees (UNHCR)

UNDP Office for Project Services (UNDP/OPS)

United Nations Children's Fund (UNICEF)

United Nations Department of International Economic and Social Affairs (IESA)

United Nations Environment Programme (UNEP)

United Nations Drug Control Programme (UNDCP)

United Nations Population Fund (UNFPA)

United Nations University (UNU)

World Food Programme (WFP)

UNDP-Administered Funds

United Nations Capital Development Fund (UNCDF)

United Nations Development Fund for Women (UNIFEM)

United Nations Fund for Science and Technology for Development (UNFSTD)

United Nations Revolving Fund for Natural Resources Exploration (UNRFNRE)

United Nations Sudano-Sahelian Office (UNSO)

United Nations Volunteers (UNV)

Other Special-Purpose Funds

Photo Credits

Page 2
John Isaac / UN

Page 5
Studio Azzurro
Jørgen Schytte

Page 7
Lee Stone / Sygma
Emma Robson / UNDP

Page 9
Michael Lutzky / UNDP
Ruth Massey / UNDP
John Isaac / UN

Page 10
Ray Witlin / UN

Page 11
Ruth Massey / UNDP
CIMMYT / Mexico

Page 13
Mary Lynn Hanley / UNDP
David Kinley / UNDP

Page 15
Cherie Hart / UNDP
Jørgen Schytte
Jørgen Schytte

Page 17
Jørgen Schytte

Page 18
Louise Gubb / UNDP
Louise Gubb / UNDP

Page 22
Ruth Massey / UNDP
Vince Roberts / UNDP

Page 23
Ruth Massey / UNDP

Page 24
Andrew Boner / UNDP

Page 25
Charlyn Zlotnik
Mary Lynn Hanley / UNDP

Page 26
Sid Kane / UNDP
Sid Kane / UNDP

Page 27
Ruth Massey / UNDP

Page 28
Ruth Massey / UNDP

Page 29
Mary Lynn Hanley / UNDP
Denise Barricklow / UNDP

Page 30
Curt Carnemark

Page 31
CIMMYT / Mexico
Siddharth Dube / UNDP

Page 32
Ruth Massey / UNDP
UNV / Geneva

Text
T. Rajeswary

Art Director
Esther Kurtz

Design
Maureen Lynch

Printing
Hoechstetter

Produced by UNDP
Division of Public Affairs
May 1992

Printed entirely on recycled paper.

Human Development
One United Nations Plaza
New York, NY 10017